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This sixth, and final, report features reports by 17 special consultants. Most of them have been with the study for two years. In the course of its work, members of the two study teams have visited close to 300 PACE projects, studied over 1,000 proposals, attended several meetings on ESEA Title III, and read numerous materials. In this volume, each consultant views the future of PACE from the vantage point of his own specialty. Credit or criticism rests with each author. (JL)

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Reports of the Second National Study of PACE

1. Evaluation and "PACE": A Study of Procedures and Effectiveness of Evaluation Sections in Approved PACE Projects with Recommendations for Improvement. February 29, 1968, 270 pp.

2. The Continuation and Strengthening of ESEA Title III. March 4, 1968. 2 pp.

3. A Comprehensive Model for Managing an ESEA Title III Project from Conception to Culmination. November 10, 1968. 90 pp.

4. Analysis and Evaluation of 137 ESEA Title III Planning and Operational Grants. November 15, 1968. 69 pp.

5. The Views of 920 PACE Project Directors. November 20, 1968. 67 pp.

6. PACE: Catalyst for Change. November 29, 1968. 258 pp.

SECOND PACE NATIONAL STUDY

(1967-1968)

Special Consultants

William M. Alexander
Director, Institute for Curriculum Improvement
College of Education
University of Florida

Glenn O. Blough
Professor of Education
University of Maryland

Don Bushnell
Vice President and Director
Research and Development
Brooks Foundation
Santa Barbara, California

Don Davies
Former Executive Secretary, National Commission on Teacher Education and Professional Standards
National Education Association

Lloyd M. Dunn
Director, Institute on Mental Retardation and Intellectual Development
George Peabody College for Teachers

Elliot W. Eisner
Associate Professor of Education and Art
School of Education
Stanford University

James D. Finn
Chairman, Department of Instructional Technology
University of Southern California

Dorothy Fraser
Coordinator of Social Science
College of Education
Hunter College of the City University of New York

Egon G. Guba
Director, National Institute for the Study of Educational Change
Indiana University

Robert J. Havighurst
Professor of Education
School of Education
University of Chicago

Maurie Hillson
Professor of Education
Graduate School of Education
Rutgers, The State University

Arthur A. Hitchcock
Professor of Education
State University of New York at Albany

Norman D. Kurland
Director, Center on Innovation in Education
The State Education Department
Albany, New York

John W. Letson
Superintendent of Schools
Atlanta Public Schools

A. Harry Passow
Professor of Education
Teachers College, Columbia University

Joseph B. Rubin
Teacher, Chapman Elementary School
Portland, Oregon

Wilbur Schramm
Director, Institute for Communication Research
Stanford University

Ira J. Singer
Assistant Superintendent
West Hartford Public Schools

Robert E. Stake
Associate Director, Center for Instructional Research and Curriculum Evaluation
University of Illinois

Special Advisors

Harold B. Gores
President, Educational Facilities Laboratories, Inc.
New York, New York

Donald W. Johnson
Former Director, Program Planning and Development
California State Department of Education
Sacramento, California

Daniel L. Stufflebeam
Director, The Evaluation Center
The Ohio State University

PACE Project Directors' Advisory Group

Robert L. Hammond
Former Director, Project EPIC
Tucson, Arizona

Arthur R. King
Director, Hawaiian Curriculum Center
State Department of Education
Honolulu, Hawaii

Donald R. Miller
Director, Operation PEP
Burlingame, California

George G. Tankard, Jr.
Director, Center for Effecting Educational
Change
Fairfax, Virginia

Shelley Umans
Director, PACE Activities for
New York City
New York, New York

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INTRODUCTION

This sixth, and final, report of the Second National Study of PACE will feature special reports by 17 special consultants. Most of them have been with the study for two years. In the course of its work, members of the two study teams have visited close to 300 PACE projects, studied over 1,000 proposals, attended several meetings on ESEA Title III, and read numerous materials. Every team member took the assignment seriously, and each contributed time and interest considerably beyond what an already overcommitted schedule would allow.

In this volume, each consultant views the future of PACE from the vantage point of his own speciality. Credit or criticism rests with each author.

I would like to exercise a point of personal privilege and acknowledge my sincere appreciation to my wife, Peggy, who has understood the demands that PACE makes on anyone connected with it.

This study is sponsored by an ESEA Title III grant, to the Center for Effecting Educational Change, Fairfax County, Virginia, which subcontracted the assignment to the University of Kentucky's Research Foundation.

Richard I. Miller
Director of Study
November 29, 1968

SOME INITIAL REMARKS

by Richard I. Miller[*/]

On September 23, 1965, American education turned a historic corner when President Johnson signed the authorization bill for The Elementary and Secondary Act. While federal support of education has been evident at least from the Northwest Ordinance of 1787 and the Morrill Act of 1865, the 1965 authorization marked a degree of financial support of unprecedented proportions.

The most imaginative and exciting aspect of the ESEA package has been Title III, known as PACE. Perhaps it would be useful at this point to review very briefly the uniqueness of this Title as conducted during the first two years. Seven points are given in the report of the first national study:

1. Title III is unique in its broad mandate.
2. It is 100 percent money to local agencies—real money for the first time.

[*/] Director, Program on Educational Change, University of Kentucky; and Acting Chairman, Department of Social and Philosophical Studies in Education. (And Director of the First and Second National Studies of ESEA Title III.)

3. PACE has a built-in requirement for community participation.

4. Title III establishes 50 state contests as well as one national one since approval is competitive.

5. It emphasizes innovativeness and creativity in its projects.

6. The extent of Congressional interest in the program is unique.

7. The federal-state relationship in unique.

John W. Gardner allegedly said that "great ventures start with a vision and end with a power structure."

Is this true with PACE?

How far, if at all, has this innovative and creative title been afflicted with hardening of the categories?

The following 17 reports all approach this problem, and others related to the future of PACE. This form of evaluation—expert opinion—remains a reliable and important way of passing judgment. In an age of whirling computers, parametric measurements, and scientific analysis, it is comforting to find that the voice of experience and honest inquiry still has a place in the scheme of things.

CURRICULUM DEVELOPMENT

by William M. Alexander[*/]

This statement is based on an examination of two groups of Title III proposals, the first during 1966-67, and a second group during 1967-68, and on site visits to a number of Title III projects. The statement also reflects the author's participation in various sessions of the PACE national study team and his general experience in curriculum development.

New and Important Developments in Curriculum

At least three major emphases in present curriculum development should be reflected in the innovative and creative educational projects supported by Title III: (1) the reorganization of instructional programs in the major subject fields; (2) the development of packaged instructional materials by various national groups, and (3) a pervasive emphasis on the individual learner through many instructional and organizational practices.

[*/] Director, Institute for Curriculum Improvement, College of Education, University of Florida.

The reorganization of subject matter through the "new" curriculum plans is a phenomenon of the last decade, spearheaded by the many national curriculum projects. New structures and sequences of subject matter have been developed in science, mathematics and foreign languages, and increasingly evident now in English, social studies and the arts. The so-called "reform movement" has touched in varying degrees each area of the school curriculum. Already some of the new programs are becoming the old ones, being superseded in turn by still newer ones. Continuing curriculum development should be expected to maintain a continuing inquiry concerning the efficacy of new programs and ways and means for maintaining constantly updated curriculum plans. Furthermore, along with the plethora of new definitions of scope and sequence in the subject fields, there is an increasing concern for a proper fitting of the parts into adequate total curriculum designs.

Related to the development of the new subject matter is the packaging of new programs into combinations of textbooks, programmed instructional materials, recorded and audio-visual materials, and various types of accompanying hardware. In some cases, aided and abetted by the national curriculum projects, industrial combines as well as other production and distribution agencies are today developing comprehensive instructional packages, kits and other combinations of projects. These developments should be accompanied by extensive efforts in local school systems to study and try out various combinations in order to discover the right "packages" for particular learners or groups of learners.

Current developments in curriculum and instruction direct a special focus on the program of the individual learner. Although concern for the disadvantaged learner has become paramount, comprehensive programs in local school systems are attempting ways and means of reaching each individual, with recognition of his particular capacities and potentialities, his learning processes, and even his idiosyncracies. The widespread interest in new organization of the school ladder, in individualized progress plans, and in independent study and other arrangements for individual learning activity, should be reflected in programs of educational innovation and development in local school systems.

PACE and the New Developments

The Title III proposals thus far reviewed by this writer have not, in general, been focused on innovation in particular subject fields, since the national study team has included specialists in some subject fields. Several proposals advocating multi-service centers have provided for assistance to schools in demonstrating and evaluating new instructional programs and materials. One substantial effort in curriculum development, the Hawaii Curriculum Center, is making a unified systems approach to designing, developing, demonstrating and evaluating new curriculum programs and materials. This approach was especially evident in English, foreign languages and the fine arts, when visited by this reviewer. Except for this Center, no adequate, comprehensive approach to curriculum development is known to be operating through Title III support.

The situation is similar with respect to the tryout and systematic evaluation of instructional materials packages. Most of the multiple-service centers are assisting the local districts in identifying and using newly-developed instructional packages. Again, only the Hawaii Curriculum Center is known to be developing and evaluating packages comprehensively with the primary support of Title III.

The proposals reviewed and the sites reflect much more clearly an emphasis on identifying and utilizing a variety of arrangements for direct focus on individual learners. Note the titles of certain projects reviewed:

"Provisions for Restructure in Independent Study Models"

"Know and Care Center"

"Developmental Placement Program"

"Model School Project to Adapt Exemplary Individualized Techniques to Limited Facilities of the Rural School"

"Motivation Through Enrichment"

"A Coordinated Attack on Underachievement Through Special Services"

"Center for Individualized Learning"

Also, five proposals were reviewed which aimed to emphasize individualization in new, middle school organizations, and several of the multiple-service center proposals emphasized the support of services and programs for individual pupils. In addition, many in-service education programs for teachers were directed at increasing the quantity and quality of individualized instruction arrangements.

Major Obstacles to Better Curriculum Development Through PACE

Two approaches to better curriculum development are seen as appropriate for PACE support. The first, a widespread search for, and experimentation with, curriculum and instructional innovations is being relatively well accomplished through planning and operational projects in many school districts. The major obstacles to greater success with current expenditures would seem to be a lack of competent leadership in some school districts (frequently those most lacking in innovation), and the lack of interest, all too often evident in the same districts, in fundamental educational improvement. The situation is complex: better leadership would produce greater interest, but the present disinterest discourages the employment of leaders from outside, as well as the initiative of potential leaders inside the school district.

The second approach, the comprehensive development of curriculum programs and instructional materials, is somewhat stymied by the obstacles of costs and the contrary philosophies of curriculum development. As to costs, the problem is one of relative emphasis on large and small Title III grants. As the states take over the administration of Title III funds, each will face the issue of whether some substantial proportion of its Title III money should be put into one or more large operations. This reviewer hopes that several states will devote large Title III allocations to the maintenance of continuing centers for curriculum development and evaluation.

The establishment of such centers indicates a reconciliation of opposing points of view as to the roles of national, state, and local educational agencies in curriculum development. Proponents of more attention to either national or local activity may oppose concentration of effort at the state level. Here, it is argued that under our Constitution, and in view of the dangers of national curriculum development and the inadequacies of local programs, greater leadership by well-planned, adequately funded state centers is desirable.

Future Directions for PACE

The writer's hopes for the future of PACE may be inferred from the preceding sections. Specifically, three priorities are suggested for the allocation of Title III funds during the foreseeable future:

1. Continued support of these local school district projects

which effectively search out, try out, evaluate and utilize promising innovative practices in curriculum and instruction.

2. Support of plans for identifying, training and employing competent curriculum leaders in school districts lacking these—perhaps through cooperative arrangements for EPDA and other programs of internships in Title III projects—for training curriculum development and evaluation specialists, and for the creation of resource panels of curriculum specialists to serve those districts lacking such services.

3. The establishment in several states of curriculum development and evaluation centers organized around problems of statewide importance. Such centers could ultimately constitute a great network of federally- and state-supported, state-controlled centers to aid local school districts, first in their individual states, and later, perhaps elsewhere, as their products become available and prove useful.

THE CULTURAL ARTS

by Elliot W. Eisner[*]

During the past five-year period, a number of new and important developments have emerged in the cultural arts field. These developments will be identified in this report and can be used, in part, to appraise the projects in this area funded by Title III.

Perhaps the most significant development in the recent past has been a broadened conception of curriculum content and curriculum goals in cultural arts education. In the past, the dominant view of appropriate curriculum content in the cultural arts was content which engaged students in productive activities. In the visual arts, children were engaged almost exclusively in tasks aimed at the production of art forms. In the area of music, children sang or played musical instruments. While these forms of activity are important, they are not now considered to be exclusive by the ones to be provided for in arts programs for elementary and secondary schools. Joined with the productive aspect of the cultural arts curriculum are two other components: the critical and the historical. The critical aspect of the arts curriculum attempts to develop competencies which will enable the student to respond in an aesthetically relevant way to art and musical forms produced by others. This aspect of the curriculum attempts to help the student to appraise critically what he sees, and to provide reasons for the judgment he makes about art forms. In short, the critical aspect of the curriculum develops a sensitive eye and ear and a critical mind that converts mere aesthetic preference to aesthetic judgment.

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[*] Associate Professor of Education and Art, Stanford University.

The historical aspect of the curriculum in the cultural arts has been conceptualized because of the recognition that the cultural arts are products of culture, and that they can best be understood and appreciated when viewed or heard in the context of the culture in which they were developed. This is not to imply that a child can put himself into the Globe Theater to hear and see "The Merchant of Venice." Rather, it is to suggest that by understanding the Elizabethan era one can gain a richer view of Shakespeare's works.

These aspects of the cultural arts curriculum have begun to take on increased importance in the cultural arts fields. The older concern with the development of creativity, emotional health and self-expression have, to some extent, given way to goals in the arts which are more uniquely artistic in character.

The concern for the critical and historical aspects of the arts curriculum has been accompanied by the general idea of aesthetic education. While a common conception of aesthetic education has yet to be developed, there is general agreement that one of its major aims is the development of the sensibilities so as to enhance the life of feeling. In addition, those writing in the area of aesthetic education have placed an especially high value upon the development of powers of criticism. Aesthetic education seeks to develop the students' abilities to talk intelligently about the arts, using the tools of formal aesthetics as well as art criticism. What makes aesthetic education different from a productive, critical and historical examination of single art forms is its attention to the arts as interrelated forms of human expression. Learning how to relate the arts and to package them appropriately within the confines of a course is one major concern of many of those who work in the field of aesthetic education. Whether or not their efforts succeed remains to be seen; nevertheless, those writing about aesthetic education and those developing programs in aesthetic education have provided intellectual vigor and rigor to the cultural arts field.

Directly related to these developments in the cultural arts is the realization that new forms of teacher education are necessary if the conceptions underlying new programs are to be successfully implemented. While in previous years art educators could talk about preparing artist-teachers, this conception of the teaching of art is now considered too limited. Teachers of the arts will need to be critic-teachers or historian-teachers as well, or at least specialists in these areas will have to be trained to work in the critical and historical domains of the arts curriculum. In short, with an expanding conception of curriculum content and curriculum objectives has come an expanded conception of the skills needed in the teaching of the arts.

Two other developments worth mentioning have emerged in the cultural arts scene. First, the need for new instructional media has been recognized, and second, the need for effective evaluation procedures has become imperative.

With the development of new instructional media in the sciences and social sciences, professionals in the cultural arts have begun to recognize the importance of multi-media tools for facilitating artistic learning. The single concept film, the use of specially prepared slides and the development of transparencies and specially prepared reproductions are now in the process of development in various parts of the country. Regional laboratories such as CEMERL and CAREL, as well as such universities as Stanford and Case-Western Reserve, are beginning to develop new instructional media to support those teachers using new curricula in the cultural arts. These materials will serve to facilitate aesthetic learning by allowing the student to compare and contrast the qualities constituting visual and musical form. And if these devices prove as effective as their advance billing would indicate, it will be possible for students to develop levels of critical awareness in the cultural arts that are generally believed to be reserved for the artistically gifted.

The move toward the development of new evaluation mechanisms has been slow in coming in the cultural arts, but it is finally on its way. The paucity of instruments in this area is due to a variety of factors: little interest in measurement among those in the field, reluctance on the part of test publishers to publish a test for a limited market, and a dearth of people with competencies in test construction in the field of the cultural arts. In addition, although school districts frequently administer tests to evaluate programs in mathematics, social studies, science and reading, there are very few, if any, school districts which assess programs in the cultural arts.

Motivated by the Office of Education and by a growing cadre of individuals sophisticated in both the arts and educational evaluation, instruments are being developed to assess highly complex forms of affective learning. These instruments, though primitive in form at present, will, when refined, make it possible to secure objective, reliable and valid data in the programs employed by schools in the cultural arts.

PACE Developments in the Cultural Arts

The Title III projects I have seen, and the proposals I have read, cover an exceedingly wide range of sophistication. Those at the upper end of the continuum reflect many of the significant developments in the field. Such programs are concerned with using new media and modes of instruction to effect artistic learning. Special exhibition material, teacher manuals and other instructional resources are used. Sophisticated programs also attempt to develop or acquire evaluation tools useful for appraising their effects. And when the project staff does not have the qualifications to design evaluation strategies, competent consultants are called upon.

At the other end of the continuum are projects in the cultural arts which lack the human resources to carry off the task successfully. Project directors not sophisticated in the field may not realize the very real needs they have for using funds effectively. What I have seen and read of Title III proposals indicates to me that the entire panorama can be found in those projects which have been awarded funds. Ironically, it is generally the case that where the need is the greatest, such as in rural or isolated areas of the country, the competencies of the staff have been weakest.

Obstacles and Challenges

Obstacles to the development of programs reflecting the most advanced thinking in the cultural arts field are multiple, but the most formidable obstacle, in my opinion, is the lack of competent personnel. Where the project director was strong and his staff competent, the project was usually vital, the esprit high, and one could sense a feeling of progress. Where the director and staff were weak, one often sensed confusion in direction and bickering among the staff.

But a competent staff does not automatically ensure an effective program. Some of the obstacles to effective projects were wholly unique to the situation. In one project, for example, it was not possible to hire the type of person needed for the project, although the project director was skilled and perceptive. In another project, the staff was enthusiastic, but the students' exposure to the program was so brief as to be unlikely to yield significant learning.

In addition to these obstacles, there is a tendency on the part of projects to have an "add on" quality to them. That is, they tend not to become institutionalized in the school's program, but tend rather to function as enrichment programs—supplementary, rather than central aspects of the total educational program. Such plans probably result from a type of educational timidity that avoids requiring any radical change in the school program to permit the accommodation of a promising program in the cultural arts. Yet, to the extent that these programs remain peripheral, to that extent are they likely to be dropped when the flow of federal funds ceases. Cultural arts programs need to become a part of the mainstream of the schools' overall curriculum, and students need long-term exposure to such programs if the goals of those who are at the cutting edge of the cultural arts field are to be attained.

Among the obstacles to successful Title III programs in the cultural arts are the lack of competent personnel, personnel who know both the cultural arts and curriculum and evaluation; a peripheral quality to the programs, that is, the development of programs with an enrichment or supplementary quality to them; and other obstacles unique to the context, and which are not generalizable.

Looking Ahead

There are no simple solutions to the problem of improving cultural arts programs in Title III. The problems faced by projects are diverse and complex. In addition, the conceptualization of the field of cultural arts is itself undergoing change, and people in it are feeling their way through a variety of schemes for rationalizing its structure.

I believe, in general, that projects can be improved if they will attempt to provide sequential and continuous programs which go beyond brief exposure. To say that 60,000 children have been served by a project is insufficient if their contact with the program has only been from twenty minutes to a half-hour. Too many programs try to reach too many children. It would be far better to demonstrate the effect of an intensive program than to provide a superficial program for larger populations of students.

The development of instructional materials in conjunction with the program holds great promise, in my opinion, for improving cultural arts projects. Materials once produced become a part of the teachers' instructional resources and can be used over and over again. They seem to anchor the project in the classroom and, in addition, they provide the teacher with the help needed in instruction.

The use of professional artists on a short-term basis appears to be an effective way of motivating both students and teachers. Children see an individual who was only an image before, and perhaps not a flattering one at that. Teachers, too, have an opportunity to observe technique and teaching method. The enthusiasm of interested artists appears indeed to "rub off."

Lest this final report give the impression that the cultural arts programs in Title III are feckless, let me here dissipate that impression. There are, to be sure, projects not likely to make a significant impact. There are such projects in all fields. But, Title III has made it possible for school districts to secure programs which would never otherwise be offered to students. In doing this, it has made a contribution to American education. The beginning of change, the opening wedge, has been initiated in many districts through the efforts and support of Title III programs. Whether these small changes will continue, or whether the "crack in the plaster" will be returned to its previous rigid state, remains to be seen. But Title III projects have made a beginning by demonstrating that programs can be done differently. To demonstrate this in American schools is no small achievement.

HANDICAPPED CHILDREN

by Lloyd M. Dunn[*/]

Title III of the 1965 ESEA (or more popularly, PACE — Projects to Advance Creativity in Education) was designed to stimulate innovation and exemplary projects in all of education, including special education. PACE has only been in operation for three years. In that time, it is estimated that approximately 150 proposals have been received in the area of education for the handicapped. While those funded have resulted, no doubt, in new programs which would not otherwise have been initiated, the large bulk of these proposals could be characterized as being diverse in nature, rather traditional, and generally lacking in evaluation. This is not surprising since they were an unsolicited, uncoordinated group, submitted ad lib by a variety of local school systems.

Now there have been two developments. First, Title III is being

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[*/] Director of the Institute on Mental Retardation and Intellectual Development, and Professor of Special Education, George Peabody College for Teachers.

passed, in large measure, to the states for coordination through state plans. Second, 15 percent of the Title III funds have been earmarked for special education projects. Thus, it is an opportune time to propose some promising directions for special educators for investing their quota of venture money allocated for innovation.

Promising Directions

The hazards of making projections are well documented in many areas of human endeavor. Man has been remarkably inept at seeing changes needed in the social order, and even more unwilling to implement them. Traditionalism, conservatism, and an inability to change have characterized nearly all social institutions, especially that of education. There are a few signs that these same phenomena are becoming widespread in special education for the handicapped as it becomes more entrenched. Notwithstanding, there are even stronger indications that much of special education is not satisfied with its present practices, and is not prepared to become a program based on traditional philosophy and expediency. If this latter reading is more correct, then it would seem that innovations in the following five areas show the greatest promise for initiating an American Revolution in Special Education.

1. Boarding schools.

In the United States, the standard practice has been for State

Departments of Education to operate residential schools for the blind and for the deaf, and in certain cases, for dependent, emotionally disturbed, delinquent and mentally retarded children. However, in these latter cases, it is usually some other department of state government which assumes this responsibility, including such departments as health, mental health, corrections, and so forth. Through the years, State Departments of Education have been very reticent about operating residential facilities, except in the areas of the deaf and blind. However, the time has clearly come to devise and to study the efficiency of a wider variety of special-purpose boarding schools for the handicapped. The need is particularly pressing in such areas as the socioculturally deprived retardate, the emotionally disturbed and the multiple handicapped. With regard to the multiple handicapped, there are a number of issues that need to be resolved. How specialized should these boarding schools be? Should there be a different one for the deaf-blind, the blind-mentally retarded, the cerebral palsied-mentally retarded, etc.? Or should children with a wide range of learning problems be served in one facility? Of course, the size of the facility is at issue. It probably should not exceed 35 to 50 pupils. By broadening the function of a unit somewhat, one can bring in a wider array of educational specialists to work with the child. Too, consideration should be given to providing day and boarding school services at these centers. In any event, when developing its plan under Title III of the

ESEA, each state should deliberate hard and long on the new need for small, special-purpose boarding schools for children with handicapping conditions.

There are many conditions which make it increasingly difficult for many handicapped children to make adequate progress in the special day programs provided by local school systems. Increased family disintegration is upon us. Thus, the home often does not provide the warmth and security which so many children with severe learning problems need. Furthermore, physicians continue to save children who would otherwise have died in the past, children with residuals because of high fever from rubella, etc., accidents, or other catastrophic events. Furthermore, with the population explosion and problems connected with birth control, it is obvious that, in the immediate future, we are going to have many children with more severe learning problems than those we have had in the past. It is time now, not only to begin to serve adequately the children who are already at hand and who need our help, but also to evolve and field test programs for those children who will be at our doors in the immediate future. For many of these present pupils and pupils-to-be, there is growing evidence that optimal education cannot be provided through day-school program which operates only a few hours a day, for about 185 days a year. What is needed is an around-the-calendar as well as an around-the-clock program for certain children. Intensive and continuous instruction could be provided in a boarding school by having two sets of teachers; one to work during the regular school hours, and another group to work with children outside the regular school hours. With such a regimen, it should be possible for the pupils to make much more progress than has been the case in the past. Title III should give us an opportunity to try out small, special purpose boarding schools, possibly by renting, renovating, and using suitably large, old residences near colleges and universities with faculties which could provide expertise in program development and evaluation.

2. Educational diagnosis and prescription developing centers.

One of the most heartening developments in special education is reflected in the receipt of applications for funds under Title III to try out new procedures for replacing past diagnostic practices. Traditionally, special education diagnosis has been done by the psychologist, physician, social worker, speech and hearing specialist, and sometimes, educators. Generally, the goal has been to find out what is wrong with the child, and why. Thus, the result has been, understandably, to place a disability label on the child, based largely on the medical model. Many children with a common disability label have been homogeneously grouped under some special education service. This has created a self-fulfilling prophecy in that the effects of these disability labels have been devastating. First, they have not been badges of distinction and therefore have stigmatized the child. Second, they have lowered the level of aspiration of the teachers in their instruction. Third, they have not enhanced the self-esteem of the children so labelled. There is a strong trend in the field to do away with both our traditional areas of disability and their disability labels for the more mildly handicapped. Here the common terms refer to the educable mentally retarded, the minimally brain injured, the mildly emotionally disturbed, and so on. Instead of looking to physicians and psychologists for educational diagnosis and recommendation of special education placement, a new pattern has emerged. Clearly, it makes sense for the profession providing the treatment to be responsible for its own diagnosis, using the ancillary help of other professions as needed.

What is proposed is that sizeable school systems (or two or more small school systems in collaboration) establish Special Educational Diagnostic and Prescription Development Centers. These centers would be staffed by an array of educational specialists with expertise in such areas as motor development, sensory-perceptual training, cognitive development, language development, remedial education, and so forth. The role of this team would be to take a child and work with him long enough to ascertain basic information on where he is operating, to discover the channels by which he can learn best, to determine adequate mechanisms for his motivation, and (most important) to devise, try-out, and establish a successful method of instruction. Thus, children would need to attend this facility for at least a month, and hopefully, until a successful intervention program had been devised for him. Clearly, this does not necessarily do away with labels, but it certainly removes the need for using those disability labels which have done more harm than good. Instead, from time to time, a child might have a descriptive label which would describe the program in which he is enrolled; for example, in language development versus sensory training. Not only would physicians, psychologists and social workers be brought in as consultants when needed, but children with apparent psychological, physical or social problems could be referred to the appropriate authorities. However, the clear emphasis would be on the responsibility of educators for their own diagnosis and for devising their own interventions. Hopefully, the risk capital provided under Title III would enable State Departments of Education (in collaboration with selected local school systems) to experiment with this new approach to educational diagnosis and intervention. Rather obviously, our traditional procedures have been ineffective.

3. Curriculum development.

If special education is to move from an intuitive clinical basis to a science of instruction, much time, effort and talent must be devoted to curriculum development. This will be difficult for those special educators who feel that all pupils are different and need unique courses of study. Understandably, many are unable even to entertain the notion that standard sets of instructional materials (or sequential lessons) could be useful in teaching handicapped children. However, it can be argued that well-programmed instructional programs do have a place in special education when viewed as providing the basic ingredients which need to be adapted and modified to suit a particular child with a particular set of needs and learning characteristics. In my view, essentially all Title III funds could be wisely spent on curriculum development.

In terms of a modus operandi, it would probably be wise to set up a variety of teams of specialists across the nation to work on specific areas. Thus, a chain of Special Education Curriculum Development Centers is advocated. In terms of manpower, the teams would vary, depending on the area of emphasis. For example, in working up specialized programs in motor development, we would need teams of special as well as physical educators, and occupational and physical therapists, not to mention people in recreation, physical education, etc. In the areas of language development, speech pathologists, audiologists, special educators, psycholinguistic specialists and other language development authorities would need to form the team. It would seem wise to release from classroom instruction some 10 to 15 percent of the most creative special educators for participation in these materials development ventures. The first step of these teams would be to conceive of a conceptual model on which to base their programs. Teachers and theoreticians would need to collaborate. It would be wise, in many cases, for these centers to be established at, or near, colleges and universities. However, the other option would obviously be to keep them within the state and local school systems. Extensive and elaborate sets of exercises would need to be devised in a number of basic areas. Such broad topics as the following might provide a framework for organizational purposes: (1) motor development, (2) sensory and perceptual training, (3) cognitive and language development including the academics, (4) speech training, (5) connative development, (6) social development, and (7) vocational training. After the various models have evolved, the task of the teams would be to create, field test, modify and test the efficacy of the various programs. It is not recommended that the teams work along the lines of the traditional disability labels, but that they be grouped according to what they can contribute to a particular area of instruction. For example, in the area of auditory training, people in remedial reading, education of the deaf, audiology and education of the mentally retarded might combine their talents to devise a program better than one devised by each group operating independently. With an adequate investment in curriculum development, perhaps in a decade or two we will no longer be nonplussed by the question: What is special about special education for the mildly handicapped?

4. Manpower for special education.

As in all of education, special education has had a perennial shortage of master teachers. In the foreseeable future, this critical problem will not be alleviated. Thus, the need exists for innovations in utilizing master teachers most effectively. In this regard, the vertical team notion is presented for experimentation. Here a master teacher would be at the top of a pyramid, below which would be standard teachers, beginning teachers, apprentice teachers, student teachers, community volunteers, teachers' aides and perhaps others. Often, handicapped children need to be taught in a one-to-one tutoring relationship. But there are not enough master teachers to enable each handicapped child to have such a person as a tutor. However, the notion of a cadre of persons concentrating on a group of handicapped children might permit much more tutoring and intensive instruction than is presently the case. Experimentation with the vertical team notion would appear to have merit, utilizing Title III funds. Certainly, the master coordinating teacher should have a large salary supplement for the extra work, responsibility and talents that would be required for success in this field. A salary from 25 to 50 percent higher than that of the standard teacher would not seem inappropriate. This would, of course, need to be built into the plan.

Generally, special class enrollments have been quite small, ranging from as low as five or six pupils, to a high of 15 or 16. With a vertical team available to a group of children, a master teacher could handle as many as perhaps 30 or more children, probably more effectively than she is now able to handle 12, on her own and without extra help. Experimentation with the type of manpower and size of the group could help us now. Even more valuable would be the information gleaned from such experimentation as we attempt to extend services to the increased numbers of handicapped children who will be at the school doors in the foreseeable future.

5. Early childhood education.

Some progress has been made by special educators in beginning special education in the pre-school years. Perhaps this is most true in the area of education for the deaf. Here, it has been rather clearly demonstrated that special education needs to begin as early as the age of three to assure deaf children of a reasonable chance of developing effective communication skills. Small beginnings have also been made at providing early childhood education for children with certain other learning disabilities. However, as yet, most retarded, cerebral palsied, deaf, blind and other types of children do not begin their formal education until they reach the age of six. As Benjamin Bloom of the University of Chicago pointed out in his book entitled *Stability and Change in Human Characteristics*, almost half of all growth in human intelligence takes place before the age of four years, another 30 percent between the ages of four and eight, and the remaining 20 percent between eight and seventeen. Thus, about 50 percent of a child's intelligence takes place before the age of six, and 80 percent is completed by the time he is eight years of age. There is growing evidence that other sets of behaviors are also largely acquired at a very early age. These data indicate the need for early education. Clearly, the years before six are especially crucial for children with potential learning disabilities.

In the past, much of special education in local school systems has been a service for children who originally enrolled in the regular grades at the age of six, but who encountered learning difficulties in the primary grades. Regular teachers have then referred the children to special educators to remediate, or live with, the learning difficulties of the pupils with whom they have been unsuccessful. Generally speaking, special educators have not been much more effective in helping these children than have the regular classroom teachers. Thus, there has been growing disaffection with this referral and special education process. Instead, a new pattern of special education seems to be emerging. One is developmental in nature; the other, supportive. In developmental special education programs, special educators assume responsibility for the total education of severely handicapped children from an early age. In supportive special education, general education would continue to have central responsibility for the vast majority of the children with mild learning problems, with special educators serving as resource teachers in devising effective prescriptions and tutoring such pupils. In these developmental programs, it will be extremely important for special education to experiment with innovative programs in very early childhood education. Perhaps the notion of critical period has special relevance here. For example, perhaps the first two years will be especially critical for children encountering problems in the area of motor development. For those children encountering their greatest difficulties with sensory and perceptual development, the period from one to two years would seem to be especially critical. In the area of language development, between the ages of two and three is obviously the critical period. And so it goes with written language probably not becoming a critical matter until the age of six or more. However, the initial steps of learning toward academic instruction would need to be well established (namely, in motor development, perceptual development and language development) by the time the child reaches six.

Title III funds could provide needed resources for experimentation with very early childhood education programs for children with learning and potential learning difficulties. A special challenge, in terms of Bloom's data, is that every effort be made to stimulate cognitive development in children with intellectual deficits, long before the first six years. Thus, it may be possible to initiate a program for prevention of the need for special education during the usual school years, especially for children who come from backgrounds of socioeconomic deprivation. Hopefully, children of slow-learning parents, of parents who have older siblings who are retarded, etc., could benefit especially from cognitive training in the early childhood years. In fact, with such programs, it might be possible to advance cognitive development to the point where these children could attend a regular school program where compensatory education services are increaingly available. Comparative studies in early childhood education would need to be conducted to contrast, for example, the Montessori approach with the Bereiter and Englemann procedures. Clearly, much innovation and experimentation will need to take place before the most effective procedures are determined.

Concluding Comments

This, then, is my blueprint of priorities for utilizing special education's share of the Title III funds. Experimentation with (1) boarding schools, (2) educational diagnosis, (3) curriculum development, (4) vertical professional team, and (5) very early childhood education would, in my view, be the areas of greatest promise. Hopefully, the PACE program in special education will move us, during the next decade, from teaching by intuition toward a science of instruction.

PUPIL PERSONNEL SERVICES

by Arthur A. Hitchcock[*/]

Four developments in pupil personnel practices are delineated. They are new in the sense that they now appear to be accepted in some degree but they have not become so dominant so as to rule the work of pupil personnel specialists.

1. Theoretical concepts of the nature of man as determinants of professional worker roles

For many years, the work of psychologists, counselors and social workers, has been viewed as that of helping students to be what they may become (and this is sound), but the processes have not been effective. Now, a theoretical concept is emerging—still tentatively, but viable—a concept new in the sense of its application to specialists in pupil personnel services. The subject matter of these services is man. We are concerned about his humanization in a very difficult world in which only the more-human human is likely to be able to

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[*/] Professor of Education, State University of New York at Albany.

create a viable self. Pupil personnel specialties will shape their roles in accordance with the nature of man, man as an organism of needs, and the particular specialty involved. This theoretical concept forces the education of specialists into a thorough amalgam of the disciplines concerned in understanding man. Man as a cognitive-affective being is what guidance and counseling (and other services) are all about. This concept is not widespread; it is a new development, but it is also a direction ahead.

2. Role identity and preparation for the role

The one year overview of counselor preparation at the graduate level appears definitely to be out. Although the majority of counselors are still prepared at the one-year level, nevertheless the counselor as a technician, with one year of background, is inconsistent with the development and direction stated above. The change to more adequate preparation is being forced by persons of creative leadership in counseling, by new counselors who report that they do not have the background for the difficult role of a counselor today, and by state departments of education, the first of which—New York State—is moving to two years of preparation for counselor certification. The counselor as an identifiable person with a unique role cannot be supported by a technician's preparation.

3. The practice of counseling as a one-to-one relationship is changing

Counselors in practice, particularly with educationally and socially deprived students, are finding that exclusive use of the one-to-one traditional counseling relationship is neither applicable nor efficient. Proportionately, individual counseling is diminishing and group approaches with students are increasing. The independent counseling practice with students is also changing as counselors become more involved with parents and teachers to influence their effect upon students and student environments. With parents, group approaches have been found to be especially effective. The acceptance by counselors of computers is also influencing the counselor relationship. Computer-assisted counseling has been accepted, even though such systems really are not yet in practice. The help that can be derived from a computer system emphasizes the changing role of the counselor. The counselor now can have the help of a computer, thereby freeing himself for higher level actions.

4. The pupil personnel concept is widely accepted in practice

Throughout the Title III study, the term, "pupil personnel," has been used. In fact, however, up to a year ago, pupil personnel services were accepted more as theory than fact. The leadership of New York State in this area was alone for many years. Now, however, not only is the idea widely accepted, but also the practice. This development is now recorded as fact because the concept of pupil personnel services in practice is important for the new directions ahead. New directions can become established under practices of the pupil personnel idea.

These developments are set forth as specific, significant changes that can be pointed to. They are explained in a setting of considerable unrest in pupil personnel services. Counselors, especially those with only a few years of experience, are expressing their dissatisfaction with a continuation of life as usual when life conditions have changed so drastically. Counselors should emerge into new roles.

Today, counseling is generally accepted as part of the elementary school program. Counseling is found broadly in the U. S. Department of Labor and Office of Economic Opportunity programs. Attention now being given to the American Indian and to the Spanish-American inevitably carries a counseling component. With these, and other extensions of counseling, practitioners are moving. But there are many problems and obstacles.

PACE Programs and the Cutting Edge

The cutting edge is the line which connects new developments and new directions. The first year of Title III gave schools the opportunity to come up to date, to fill some of the holes in the educational programs, to make repairs in the system. These measures had to be taken before schools could move on to change, to innovation, and to revolution. Now, the second year, this move has been made. Schools with Title III projects in pupil personnel services have wrought changes which preclude any return to the business of old. During this year, PACE projects have been on the cutting edge—on that line which connects new developments and new directions.

These are only examples to illustrate the point:

1. The training and use of guidance aides and other paraprofessionals, after some five years of endeavoring to persuade pupil personnel workers to employ such persons for work they could do more effectively than the professionals.

2. The use of the computer for more than class scheduling and routine record keeping. PACE has funded projects to move the use of the computer into direct support for counseling, and for educational and vocational information systems. Such use is not widespread, but PACE has made it possible to cut the edge.

3. Guidance and counseling as a rehabilitative agent. Innovative PACE projects are found with delinquent children, pre-delinquents, and the emotionally ineffective. These are programs in which the ideas of rehabilitation rather than welfare have been present for several years, but it has been impossible to mount the program. PACE again provided the edge to experiment with the cutting.

4. Inner city vocational incentive programs. Although pupil personnel services have not cut through to perform their roles in inner

city education generally, nevertheless, PACE-supported projects have illustrated what can be done.

5. An honest and functional union of curriculum, instruction, and counseling. After many years of wishful talk about this three-way marriage, PACE moved some projects out on the edge and established the marriage as sound, and, in the projects visited, developed practices that promised more valuable and exciting educational experiences for students.

These are but five examples. While more could be added, these are adequate to support the contention that PACE has advanced onto the cutting edge. In the first section, several new developments were mentioned. These are large-scale. Each has been advanced by specific PACE projects. The sampling of PACE programs cited above give specifics which support the large-scale developments.

Title III has given the pupil personnel community an opportunity to show how it can affect student life. PACE has, in fact, even forced student services to move in more significant directions.

Obstacles to Achievement

Obstacles to achievement are a mixture of PACE itself and the field of pupil personnel services. The obstacles explained below have been derived from studies of PACE projects and from studies of the field of pupil personnel services. They constitute a mixture of the two elements.

1. Theoretical aspects of pupil personnel services

There is a tendency to think of education in terms of socialization—and therefore efficiency—rather than humanization. This is not to denigrate the significance of achievement in American society. It is rather, however, to place the emphasis upon the ability of a person not only to achieve, but also to have a totally more productive kind of life, if his educational experiences have encouraged him to develop as a human being. Pupil personnel services too frequently are built upon the theory of services as such, rather than upon human beings as such. Very few school systems examine and continuously study the needs of students for human development, then building their services, curriculum and instruction upon those needs. This nation has reached the point at which pupil personnel services must meet the human needs of society if that society is going to emerge as greater and more livable.

2. Professional obstacles

As one examines graduate programs of preparation for counselors, one is appalled at their sterility. A basic combination of courses and areas of courses (such as occupational information and counseling techniques) has changed very little during the years. This is a generalization, and does not apply to all programs. There are a few that are moving more decisively into the concerns of society for the development of human life. But, by and large, graduate programs in counselor preparation, to say nothing of psychology and social work, have not moved with the times. There are many reasons for this, but they cannot be the concern of this paper. The situation is exacerbated by the proliferation of non-quality programs of preparation. For example, in New York State, there are 37 institutions of higher education which purport to prepare counselors. There are not even that many institutions of high-level graduate education in New York State, much less that many which deal with the specific field of counselor preparation. It has become very popular to prepare counselors. One obstacle to PACE development which will be considered next reflects upon this personnel situation. It is helped neither by sterile graduate programs, nor by programs so thin that they cannot possibly produce competent counselors, psychologists and social workers.

A further obstacle in the professional area is the technician concept so strong in the less competent schools of preparation. These schools boast that they are "practical," but in that practicality, they prepare people to perform at a minimum level of competence in the schools, and then call that level the "optimum."

Also, one must recognize realistically that the professional societies have the difficult role of projecting higher standards for the field they represent, and at the same time, protecting the members. This represents a very fine line between progress and advancement on the one hand, and the stultifying effects of the existing power structure on the other. This is simply a reality of life. At times, the professional societies advance on bold fronts because they are in a condition to do so in the society, but at other times, they become obstacles to progress because they are so protective of their members and of the standards of preparation and performance they have promulgated.

3. The personnel situation

It was observed early in the National Title III Study that one of the national problems which could very well harm Title III projects was the lack of competent personnel. Fortunately, the projects observed have been able to attract competent (and often superior) personnel because the projects are both interesting and moving. Yet one would be quite blind not to see that the personnel problem is the kind of obstacle that can prevent PACE from having as wide or as deep an impact on society at large as it might have. However, tied with this condition is the fact that more efficient use could be made of personnel. Many PACE projects have themselves illustrated this far better than the usual routine of pupil personnel services. In fact, this is one of the significant contributions PACE is making in pupil personnel services. The obstacle remains, and even partial solutions to the personnel shortage must await a more widespread emulation of projects already in effect in PACE.

4. Practices often are immune to change

In many states, but not all, the certification requirements tend to present two obstacles to movement. One, they encourage the thinking that minimum standards for certification are actually optimal standards; two, the certification practices put ceilings over, and walls around, the allowable activities of persons in schools. In professional fields, it appears that licensure by the profession, even though administered by the state, will eventually be the only suitable way out of the present condition. Under such licensing, we would have the fullest assurance possible that a person coming into the professional field was qualified to perform. Thus, he would be licensed to perform by the professional group, but not certified by the mechanism of state departments of education.

Another obstacle found in practice is the feeling frequently expressed by persons in the field that each year they are turning out a larger and larger number of persons who are going on to college. In other words, a situation exists in which there is a devotion to the same things that have been done for years. This attitude of meeting the partial needs of a part of the school population tends to prevent pupil personnel specialists from moving into a future characterized of necessity by meeting the needs of a highly diverse population. This comment does not detract from the "new breed" who are seeking to move in more human-like directions, but it does say that the institution of counseling, psychology and social work is in the control of persons who tend to obstruct change.

5. PACE tends to fragment instead of expand

In reviewing a large number of PACE proposals, and in examining many of the projects in action, it is obvious that PACE has selected outstanding projects and has then encouraged them to move. Yet, despite all the remarkably fine models PACE has thus far supported, one wonders if there might not be a greater impact if a balance could be established between the few, very large-scale programs with potentially national influence (programs which PACE has taken the leadership in encouraging) and those smaller, but very unusual, projects initiated by highly imaginative local people. The obstacles suggested here is that models which are localized only tend to detract from the potential impact of PACE. There should be a balance.

At various times in the course of the National Title III Study, obstacles have been observed and reported. The obstacles reviewed here are the deeper, underlying obstacles that affect both the field itself and the role of PACE. They are interrelated. But, despite any obstacles, it is obvious that PACE has had a profound effect upon movement within pupil personnel services.

Future Directions

The future directions of PACE depend, in one sense, upon the future directions of pupil personnel services, but in a stronger sense, pupil personnel services may well depend upon the directions that can arise through the innovative element of PACE.

First, a look at the directions of pupil personnel services which seem to be most significant, if they are to respond to the role in society that national policy, expressed through national legislation, indicates:

1. Humanization of the experience of education

This means that the counselors, in particular, must direct their efforts on two fronts: first, immediately with students in creating an individual growth of human worth toward a higher level of (most valued) human attainment; second, directly with teachers in creating an ambience of humanness. The point is well explained in the research reported by Dr. Pauline Sears: "Rewarding children by personal interest and praise for personality traits, in place of rewarding only by work evaluation, produces children who perform and score higher in creativity dimensions..." It is the responsibility of those in pupil personnel services to effect a blend of the cognitive and affective in educational experiences, directly with students, and indirectly through teachers.

This direction of pupil personnel services may seem to conflict with the vocational guidance emphasis of today. Not so. But not so, only if career and educational planning and development are viewed as part of the total life style creation so vital in today's society. This direction, however, is in conflict with the guidance functionnaire view which sees guidance as a series of mechanistic manipulations.

2. Systems approach to pupil personnel services

A limited guidance program in a small community should engage in an analysis of any existing program of guidance. For any city with a population of 75,000 or more,[a] an analysis of personnel services for students should be considered mandatory, with the understanding that the services then are viewed as a system. The systems approach encourages a more efficient use of these services.

The systems approach also, almost inevitably, brings about an evaluation system. This has become one of the greatest needs in programs of pupil personnel services. Very few school systems, if any, honestly know what is happening to their products (the students) as a result of the processes of the pupil personnel system or program. Neither do they know the relative return for expenditures in the various specialties and sub-programs within the total system.

3. Value impact on disadvantaged populations

American society will never be able to turn its back on various disadvantaged populations. Results may not be very encouraging, but the social commitment is there, as is the devotion to the idea that education is essential for creating the changes that such populations desperately need. Part of the current discouragement rests in the failure of pupil personnel services to penetrate beyond the level of superficial needs. This failure means that the totality of education is unbalanced. Yet, counseling is one element which society has decreed, through legislation, must be available to, and have an impact on, disadvantaged children. One of the prime directions of pupil personnel services in the future must be toward a value impact on disadvantaged children.

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[a] According to the 1960 census, there were 196 cities of 75,000 or more in the United States. The number of such cities would be much larger today. In a city of 75,000 population, there would be approximately 14,000 students. This is a large enough school population to merit a rather substantial array of pupil personnel specialties.

Now, a look at directions for PACE in pupil personnel services. The directions for the services, explained above, are deep, global, and far-reaching. PACE has already affected the new developments. Now, we must look ahead and see the influence that PACE can have. How can PACE affect these directions and thereby shape pupil personnel services as a viable force in American education?

1. Deliberately structure projects, on a large scale, in each direction

Many persons of influence in the structure of American education have been seeking larger, impact-laden projects. That is the need in this area. PACE could develop a multi-school district project to study, discover and show what changes can be effected in childperen by the humanization of education. It could focus on the pupil personnel services, changing their directions quite drastically, and at the same time affect curriculum, instruction, and administration.

The change in student development toward more value-directed lives in our society might be quite startling.

The same could be said of the two other directions. The move for a systems approach to pupil personnel services could revolutionize these services and their impact on students. But, this is a large-scale project which would have to be staged in more than one school district. In the direction of an impact on disadvantaged populations, there should be a total-immersion project in several different population groups. There have been many projects on a relatively small scale, but now there should be an attempt to test new practices, some of which are suggested in this paper, on a much grander scale.

A basic reason for this larger approach is the necessity for movement within a fairly short time. Student needs for human development will not wait for years, and PACE is the agent that can create these basic changes. Once they are present on a large enough scale to be visible and sound enough for transfer into other school systems, some means for communication must be evolved. The next two measures should help in this process.

2. A milieu for the generation of new and re-creative directions

PACE could launch a national seminar. Many national conferences suffer slippage because the impact reaches so few of the people who make a difference. PACE could conduct a national seminar on humanization in education, in many, many locales for a period of one year, with an appropriate follow-up in literature, directly with, and to, individuals who do make a difference on the working front, the local area. Other national seminars in the realms of the other directions might well be mounted. Certainly, a continuous national seminar on counseling with the disadvantaged could have a tremendous effect.

3. Evolve a continuing re-generation agent

PACE could move on two fronts to create a re-generation agent: One, support an institute, or similar agency, to serve as the continuing forefront of change in pupil personnel services. There must be an agency outside of the established institutions that can be an ever-viable force for change to keep pupil personnel services constantly attuned to societal changes. Two, develop the means for redirecting and revitalizing counselor education. This is a problem area behind change. The means of accomplishing this cannot be related here, but it could be done.

PACE has proved that pupil personnel services change. The purpose of this paper has been to encourage PACE to move in newer ways, perhaps bolder and riskier, to effect change on a large scale.

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SCIENCE

by Glenn O. Blough[*]

The increased emphasis on science education during the past ten years has: (1) stimulated much activity in the schools at all levels; and (2) raised problems, especially in the area of curriculum development, methods of instruction, education of teachers and use of instructional materials of all kinds. We consider here special emphasis on these problems as they exist on the elementary-school level, since the funded projects examined deal chiefly with this instructional level.

Developments and Problems

What science content should be taught at the elementary level and how it should be organized have been, and still remains in many situations, an unsolved problem. Graded series of textbooks have been, and continue to be, in many schools a major factor in determining such content. In recent years, some inroads have been made toward the establishing of specific behaviorial objectives as a basis for content selection. Another guide to content selection has been the establishment of conceptual schemes—a modern version of generalizations and science principles. Still another trend in curriculum development is a process-centered approach built around certain processes considered essential in learning how to learn. In this case, processes are considered of prime importance; learning subject matter is secondary.

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[*] Professor of Education, University of Maryland.

In addition to these rather specific developments in curriculum constructions, there are uncounted numbers of state, city, county and local groups engaging in curriculum-making, which use one or more, or some of all the developments just described. Administrators, supervisors, classroom teachers and special science teachers are involved in these projects. Many of these groups operate without competent leadership (i.e., not trained in curriculum-making, not knowledgeable in how children learn, or without background in science subject matter). Consequently, the resulting publications for use of the teachers are not always as helpful as they might be. Much work remains to be done in the area of curriculum development in science in the elementary schools.

While there has been, since the inception of science in the elementary school, considerable emphasis on problem-solving as a method of learning, headway has been difficult chiefly because of the lack of training of elementary school teachers in problem-solving techniques. More recently, new language is being used to describe problem-solving. It is conceived of as processes of discovery, of inquiry and of the use of scientific methods. This emphasis is probably one of the most important developments in the area of science in the elementary school. Helping children to learn how to learn is emphasized at all levels of instruction. This development has necessitated the use of different methods of instruction, more and better laboratory experiences, much individualized instruction, greater use of materials, less telling and showing by the teacher, and more responsibility for planning and doing on the part of the learner.

Teacher education in the area of science in the elementary school has always been a problem, but with the new emphases, the problem is even more acute. Obviously, the objectives of the program cannot be reached until real progress is made in this area. Some of the newer projects have "built-in" teacher education features. Teachers are not expected to carry out the plans of the projects without thorough understanding of the objectives and methods of instruction. This is in contrast to the usual process of handing a new science course of study or bulletin to teachers, expecting them to translate it into classroom procedures without assistance. Teachers at the elementary level are lacking in science subject matter background, as well as in an understanding of the nature of science itself and how to teach it. Colleges and universities, and in-service education, are attempting to remedy this situation. Younger teachers appear to be more nearly adequate to meet this situation than those who have been teaching for many years.

Much new material has been developed commercially for use in teaching science in the elementary school. Title III monies have been largely responsible for stocking elementary schools with all manner of equipment and apparatus. Alas, much of it remains unused, either because it is not needed to carry out the curriculum as it presently exists, or because teachers are not educated in its use. While there is much instructional material available, due to increased emphasis on the area, there is likewise greater need for instruction in when, why, and how to use this material.

A summary of the more recent developments in the field of science in the elementary school would include these features:

- Increased emphasis on the teaching of science.
- A trend toward a developmental program from kindergarten through high school.
- Scientists, psychologists, educators and classroom teachers are involved in attempting to solve the problem.
- Attempts are being made to combine mathematics and science experiences.
- Greater emphasis is placed on the method of discovery, in some instances, to the exclusion of meaningful subject matter.

Through large grants from the Science Foundation to such agencies as the American Association for the Advancement of Science, as well to individuals, much experimentation has gone on. Some of the findings are important. In many instances, the so-called discoveries are not new. Rather, new personnel have discovered them. They are, however, having considerable impact in many school systems.

ESEA Title III and Recent Developments

An examination of the funded projects of ESEA Title III indicates, in many cases, little, if any, relationship to the problems mentioned in the opening paragraphs of this paper. Of the 20 projects examined, nine are concerned chiefly with the establishment and use of planetaria or observatories, or closely related areas such as space study. Two deal with the study of marine life; five with planning museums in one form or another, including outdoor education and wildlife study; one with a radiation center; one with a center for dealing with science and industry and only *two with implementation of the present science programs designed to lift the level of instruction, bring them up-to-date, and deal with other pressing problems of science teaching*.

While it is possible to strike out toward solving some of the most pressing problems of science education through emphasis on planetaria, museums, etc., there is little evidence that this is the case in most of the projects. As described, the projects have not been selected because they will help to solve problems related to improved curriculum development in grades K through 12. They do not seem to take into account the other problems listed earlier. Only two of the projects seem to consider specifically the pressing problem of teacher education. Many of the projects appear to deal with "fringe" problems, rather than the basic problems national studies have identified as those most needing attention. The entire plan as described may be carried out and still leave the most pressing problems unsolved.

Obstacles in the Way of Achievement

There appears to be some difficulty in writing guidelines and project descriptions which will attract applicants and stimulate requests that strike directly at some of the most urgent problems of science teaching in the elementary, and to some extent, the secondary schools.

More attention needs to be given to designing some evaluating procedures which can be used during the entire life of the project. Such procedures would certainly enhance the effectiveness of the projects, since the results of the evaluations could be used to redirect the efforts when desirable.

It is quite possible that readers who are responsible for recommending the grants may, in some cases, be unfamiliar with the developments and problems in the area under consideration. Consequently, funds are allocated to "fringe" projects.

The uncertainty concerning the continuation of funds has, in many cases, resulted in indecision on the part of those responsible for the project and has seriously impaired progress.

The lack of attention to evaluation has, in many cases, been responsible for a full realization of the potential in the various projects.

Future Directions

It is suggested that the words "exemplary" and "innovative" be explained in the directions given to prospective project applicants. It is quite possible that these words may have been, in a measure, responsible for the apparent belief that in order for a project to be funded, it must deal with some "fringe" project unusual in nature, rather than one that is on-target with respect to the most pressing local problems. It is quite probable that it is not the general understanding that a project can be exemplary and innovative, and still deal with problems that are the most pressing, and in line with the more recent developments on a national level.

It is suggested that Title III applicants be urged to conduct a survey (it may be informal, if applicants consider themselves already well informed about their needs) to isolate some of the most urgent local problems which must be solved in order to improve the curriculum and teaching. It is further suggested that classroom teachers be actively involved in such needs surveys. The projects would then be planned to fit the problems indicated by the survey.

A built-in teacher-training program should be a part of any funded project since relatively few elementary school teachers are adequately prepared to teach science.

A greater emphasis on evaluation should be a part of all projects. A plan for evaluation should be both comprehensive and specific. It should attempt to measure the attainment of the objectives, insofar as this is possible.

Attempts should be made within the states to determine whether or not the problem being considered has been given attention elsewhere, so that the findings could be made available and the proposed projects could then build on these findings. In this connection, attempts should be made to coordinate findings and disseminate them, thereby increasing their usefulness.

Project readers who assist in deciding whether or not the projects are to be funded should be chosen from persons well grounded in the specific area under consideration. They should also be as familiar as possible with the area requesting funds. Needs in one area vary greatly from those in others.

Projects requesting funds should show familiarity with the work of the national projects and other significant activities, and should incorporate such information to show how their requests plan to delve deeper into the problem. The same holds for significant research in the field.

SOCIAL STUDIES

by Dorothy M. Fraser[*]

During the 1960's, the social studies program of the schools has been the subject of considerable study and experimentation. More than 60 special curriculum projects have been funded by public or private sources to develop plans and materials for improving the social studies program. In many school systems, revision efforts are under way. These activities have come about because of dissatisfaction with the results achieved through traditional social studies programs. Although there is great diversity in the nature and scope of the various social studies projects, significant emphases are emerging.[1]

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[*] Coordinator of Social Science, College of Education, Hunter College of the City University of New York.

[1] Fuller descriptions and analyses of current developments in social studies will be found in: Fenton, Edwin, The New Social Studies, Holt, Rinehart, Winston, 1967; Fraser, Dorothy M., "Social Studies Education," in Curriculum Handbook for School Administrators, American Association of School Administrators, 1967; Gibson, John S., New Frontiers in the Social Studies, Citation Press, 1967, 2 vol.

Major Developments

The need to plan within the context of the total elementary and secondary school social studies program in order to facilitate the pupil's sequential development of concepts, values and skills, is recognized. The use of basic concepts, generalizations and principles from the social sciences in order to construct an ideational framework for the total program is generally accepted. Social scientists and social studies educators have cooperated to identify the elements of such a framework.[2]

Realizing that "knowledge" is subject to rapid and continuing revision, and that the as-yet undeveloped social science knowledge of the future cannot be taught today, there is a new emphasis on helping pupils to understand how the conclusions now accepted as "knowledge" have been arrived at, and how to gain command of the process of learning. Facts, which have too frequently been taught as isolated bits of information to be memorized, are to be used by pupils to develop concepts and generalizations which they can employ as tools for organizing the masses of specific data they will encounter. Skills are to be taught functionally by having pupils apply them in social studies investigations and, cumulatively, by moving from simpler to more complex aspects. Analyses of skill areas, identifying sub-skills of progressive levels of difficulty, are available.[3]

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[2] See: Morrisett, Irving, ed., Concepts and Structure in the New Social Science Curricula, Social Science Education Consortium, 1966; Price, Roy A., et al., Major Concepts for Social Studies, Social Studies Curriculum Center at Syracuse University, 1965; A Conceptual Framework for Social Studies in Wisconsin Schools, Wisconsin State Department of Public Instruction, 1967, revised edition.

A second group of developments relates to the selection, organization and grade placement of content for the social studies curriculum. Traditional programs have been criticized for using content that is outdated, in some cases because it does not reflect current scholarship, but more frequently because much of it has been irrelevant to conditions and problems of today's world. To rectify this situation, content from the social science disciplines which can contribute directly to an understanding of contemporary society is being drawn into the school program. Included are materials from economics, sociology and anthropology, as well as hitherto neglected aspects of political science and geography. Focus on critical societal problems is receiving new emphasis. Also, the study of cultures and nations other than those of the western world has been introduced rapidly.

Traditional grade placements of content have been affected by the introduction of these new materials, as well as by revised views about children's learning. Repetitive surveys of traditional subjects are being replaced by "depth studies" of topics judged to be significant for understanding modern society. Fuller study of fewer topics provides the time required for inductive procedures and practice in inquiry skills. As a result of experiments which have indicated that children possess hitherto untapped learning potential, many topics are being treated earlier in the K through 12 program than formerly.

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[3] Carpenter, Helen McCracken, ed., Skill Development in Social Studies, Thirty-Third Yearbook, National Council for the Social Studies, 1963.

Finally, new emphases are developing with regard to instructional strategies. Procedures that stress inquiry by the student, that encourage his curiosity and that lead him to "create his own knowledge" are highlighted. The use of a range of multi-media materials, including the new educational technology, is replacing traditional dependence on the textbook as a single source of information. Individualization of instruction, with continuing diagnosis of the pupil's progress and immediate feedback into instructional planning, is recommended.

PACE-Sponsored Social Studies Projects

Do ESEA Title III projects dealing with social studies reflect these current developments in the field? A review of descriptions of the 66 projects which had been funded prior to September, 1967, indicates that in varying degrees they do reflect these current developments. More specific information, obtained through the analysis of 16 proposals, visits to three projects and interviews with personnel connected with other projects, confirms this conclusion. Some aspects of current developments in social studies are receiving much more attention than others, however.

Many, perhaps most of the projects, include some emphasis on the use of multi-media materials, and on instructional procedures intended to replace "assign-recite-test" routines with more varied activities for pupils. One project is focused directly on the use of visual aids in teaching geographic concepts. Films, filmstrips, tapes and transparencies, as well as non-textual reading materials (pamphlets, paperbacks, biographies, etc.), are stressed as learning sources in many of the programs.

A substantial number of the projects emphasizes student investigations in the community, using local resources such as industrial plants, historical sites, museums, art galleries, and outdoor educational centers, or making surveys on appropriate topics. Classroom visits from persons in the community with special experience or competence regarding aspects of the social studies program represent another way in which projects are attempting to broaden the sources of information available to students. In one project, dealing with the area of U. S. history, high school students participate with archaeologists and historians from nearby universities in excavating and restoring a pre-Revolutionary War site.

A more flexible use of pupil and teacher time is sought in several of the projects, including provision for modular scheduling and team teaching. Large group lectures, small discussion groups and independent study are provided for the students involved in these programs.

The development of new units and courses for various grade levels is underway in many of the projects, while some are engaged in reconstructing the social studies program for a school unit (for example, intermediate grades or senior high school), and still others are replanning the total elementary and secondary sequence. Materials from several of the projects primarily focused on curriculum revision indicate a concern for developing a conceptual approach in the new program.

Special content emphases, such as Asian, African or Latin American studies, the study of world affairs, or the study of resource-conservation, are a central factor in about 15 percent of the projects. Enriching social studies courses by introducing aspects of the fine arts and literature is the purpose of some projects, and museum centers and services are utilized in a number of cases. A few projects are devoted to developing interdisciplinary humanities courses for secondary school students.

Many of the project descriptions indicate that some attention is being given to in-service programs for teachers, in order to acquaint them with new content and new instructional procedures. A very few project descriptions focused directly on in-service education. A favorite device is the "educational resource center" which, in most cases, is set up to serve a number of cooperating school districts. Demonstration facilities, as well as collections of learning materials and workrooms in which teachers may learn to create various types of audio-visuals, are included in many of the centers.

This brief survey of emphases in PACE projects concerned with social studies indicates that Title III funds have indeed stimulated efforts to improve programs in this field. To what extent are the projects operating on the "cutting edge" of developments in the field? The answer varies enormously from project to project, ranging from "very much so" to "only slightly."

The projects which fall at the upper end of the scale have a number of characteristics in common. They are addressed to needs that have been clearly identified as having more than routine importance. These may be needs which exist in the specific school-community to be served, or more general societal needs. There is evidence that the planners were well-grounded in the broad professional literature of social studies education, and that they had searched out specific research and innovative efforts pertinent to their project. In many cases, several school systems have joined in a cooperative effort, often utilizing the device of an "educational center." Usually, the resources of both the school systems and nearby institutions of higher learning are tapped, with social scientists as well as social studies specialists becoming involved.

The projects at the upper end of the scale, whether limited in focus or broad in scope, are being developed with a total social studies program in mind so that attention can be given to the sequential growth of concepts and skills. Attention is given to improving both process and substantive content in the program. There are plans for interim evaluation, with feedback, as well as for final evaluation. Plans for dissemination of the innovation go beyond lecture-type in-service sessions or single visits by teachers to a demonstration center. Active involvement of the target population is sought at an early stage, and provision for continuing and broadened participation is built-in. If short range steps are taken to involve considerable numbers of teachers immediately, such as workshops in the use of multi-media materials, they are planned to feed into, and not work at cross purposes with, the long-range purposes of the project. Lines of communication are developed with parents and others in the community, as well as among school personnel.

Projects falling at the lower end of the scale lack several, and in some cases most, of these characteristics. A common difficulty may be described as a piecemeal approach, in which the specific project has been planned as an isolated entity, rather than in relation to the total social studies program. This approach is likely to be associated with the apparent lack of a broad acquaintance with current developments in social studies education, an inadequate diagnosis of the needs the project is intended to meet, poorly defined objectives, and the failure to search out appropriate consultant help.

Future Directions

What can be leanred from the experience of PACE to date with social studies projects that can serve as a basis for planning for the future? What emphases should be encouraged, as the limited "risk capital" represented by Title III is invested in starting new projects or continuing those already in existence?

A number of rather obvious criteria for selecting programs to be funded are implied by the preceding discussion.

1. Projects, whether broad in scope or sharply focused on a limited aspect of the social studies curriculum, should be designed within the context of a conceptual structure for the total elementary and secondary social studies program.

2. The project plan should be firmly based on available findings from research and experimental programs in social studies. School personnel who are to take the lead in formulating the plan and developing the project, should utilize appropriate consultants from the beginning, so that maximum benefit can be obtained from their expertise. Depending on the nature of the project, these consultants might include social scientists, social studies specialists and other professional experts in such fields as evaluation, multi-media materials or learning theory.

3. Project goals should be defined clearly, and in relation to the need the project is intended to meet. Measures for evaluation

should be an integral part of the plan. They should include provision for specific and frequent evaluations of procedures and materials in relation to project goals, with feedback to provide a basis for decision-making about the next steps, as well as for product evaluation at the conclusion of the project.

4. Provisions for involving the target population of teachers, through direct participation in development of the project, and/or through in-service programs, should also be built into the plan. In formulating these provisions, current experimentation with new approaches to in-service education should be consulted.[4]

5. Cooperative projects in which school systems join together to attack common problems should be encouraged. Such broadly based projects would have the advantage of pooling resources, both fiscal and personnel, so that projects of greater magnitude could be undertaken than those possible if each district were working alone. Also, a wider field for the dissemination of project results would be automatically established.

In addition to these general criteria for future Title III projects in the field of social studies, four priorities are suggested.

1. In funding PACE projects, priority might well be given to programs in which materials from experimental curriculum studies

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[4] See case studies reported in PACEreport, April, 1968.

would be selected, adapted, and tested with various populations in the school setting.

Curriculum plans and materials are now available in flood proportions from the major research and development projects which began their work some five years ago, under USOE's Project Social Studies program, as well as from other specially funded curriculum studies. These materials are diverse in nature and scope, ranging from single courses for a particular grade level to "wall-to-wall" curriculum plans. Although most of the materials have been tried out in school situations during the development process, further field-testing is needed before their potential can be judged. Even more important, different assumptions about learning, different bases for content selection as well as different *organizational patterns* are reflected in the various materials. To utilize them effectively, a school system must select from them and adapt the materials chosen to construct a balanced, coherent program. Projects which could accomplish this task would aid not only in the dissemination of innovative materials, but would also help other school systems to see just how this important step can be taken.

2. Pilot projects to develop and test new social studies curricula for ghetto schools would seem to deserve high priority.

In spite of the current concern about improving educational opportunities for disadvantaged urban youth and the expenditure of considerable Title I funds for this purpose, relatively little has been done to explore new types of social studies programs for this group. Bold efforts to adapt experimental materials to the needs of ghetto pupils, or to create and test drastically different approaches and materials, are critically needed.

3. Priority should be given to those social studies projects which explore ways of helping to prepare young people to cope with the basic conflicts existing in American society.

The tragic riots and assassinations of the past year are both symptoms and results of critical problems which, if unresolved, threaten the future of democracy in America. The problems, so deeply rooted in our society, cannot be solved by the schools, but the schools can contribute to their alleviation. The social studies program has a particular responsibility in this connection. Some experimental approaches and materials for dealing in the classroom with such topics as public controversy, race relations, poverty, and the role of law in American life have been developed by special curriculum projects. They are too little known by social studies teachers, too little implemented in social studies classrooms. There is an urgent need to test, adapt and disseminate these materials. Experimentation with other potential approaches for helping young people to learn about basic conflicts in their society, to think rationally about them, and to clarify their own values and attitudes toward them, is also needed.

4. Projects with major focus on new patterns of in-service education for social studies teachers should be given priority.

It is generally accepted that the classroom teacher has a crucial role in implementing curriculum innovations. Because the social studies curriculum is changing so rapidly, with new emphases in both content and process, the problem of in-service education for teachers who work in the field at either the elementary or secondary level, represents another important frontier. The ineffectiveness of traditional in-service programs—after-school sessions, institute days, and so on—is widely recognized. As noted above, some experimentation with new arrangements for in-service education is already under way. Pilot projects to adapt promising patterns to the particular problems of in-service growth in social studies teaching and to continue the search for other effective approaches, could bring important advances in the improvement of social studies experiences of children and youth.

SCHOOL REORGANIZATIONAL ACTIVITIES

by Maurie Hillson[*]

Now is the time either for a fundamental reformulation of the directions of public education or for a revolutionary intervention which can redirect the process of education. There are important departures and new developments, both in elementary school reorganization and in the educational processes. Such themes as continuous progress education, teacher collaboration, open plan teaching, diagnostic and prescriptive approaches to learning, the development of sequential curricula based on skills, concepts, or inquiry, and modular scheduling, not to mention the concomitant activities of independent study, represent a short but nonexhaustive list of the concerns and actions currently taking place. Many of these concerns are derived from very plausible points of view concerning the way a learner learns, i. e., the process of education. Even though there presently are no individual models which include all these areas in a completely developed way, at least we can see that the research of the past years concerning child growth and development, together with the whole scientific revolution concerning learning, have indicated that elementary education must certainly reject many of the items now constraining the education of the child. Both research and practice point to needed activities for elaborating the abilities or insights of children to a point where they actually participate more fully in the educative act. The themes noted above have been put into operation in varying degrees in several places throughout the United States. PACE has supported many proposals in which these themes have been planned as germane aspects of the educational innovation.

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[*] Professor of Education, Graduate School of Education, Rutgers - The State University of New Jersey.

However, verbal attestation does not always represent fruitful and meaningful implementation, and a tremendous amount of lip-service has been given to these themes. There are, embarrassingly, many places which refer to their programs as nongraded schools. On closer investigation, they are frequently found to be merely recastings of the graded school in a different, but equally constrained, format. The major concerns of a diagnosis and prescription, the development of learning sequences and the application of teaching strategies, using the specified styles and needs of the youngster's individual learning timetable as the yardstick, are absent from these programs. Indeed, they do not make any basic contribution at all to the growth of the children involved.

ESEA Title III Projects reflect many innovative themes, and the proposals themselves offer insights into what should be considered. The proposals which concern themselves with continuous progress, nongraded, collaboratively taught, open plan diagnostic and prescriptive approaches are many. Attempts to break with the customary graded school organization, moving with the new organizational vehicles seem to be rather intensive. Many of these projects have been funded and are operable. The unfortunate situation is, however, that so few of them actually move from verbal proposal stage into implementation activity so necessary and vital in establishing the value of an educational innovation.

Obstacles

There are many obstacles which prevent the establishment and implementation of programs. Chief among these is the lack of opportunity for educational training programs as well as the "lead-in" time necessary to alter the perceptions and techniques of those involved in the implementation of innovative approaches. Rather than lamenting the problems which constrain programs of implementation, criteria for action and forceful programs of implementation should be established. If the future of PACE is to see a move from verbal testament to programs of actual implementation, then some set of items ensuring that implementation must indeed be found.

There are certain necessary elements of implementation inherent in achieving a process leading to the adoption of various themes of organizational innovation. These must be addressed if the establishment of new forms to allow for a different kind of education is to be defined and created.

If the themes of nongrading, collaboration, individualization, and other innovations are to be realized, then, first, there must be created a school organization for flexibility. An attack must be made on the fundamental constraints of the present organizational patterns of the elementary school. Mechanical schedules must differ. An attempt must be made to create more effective teacher utilization by determining teacher strengths and by allowing for, if not indeed insisting upon, creative teacher-pupil deployments for the betterment of educational programming. There must be a set of activities to lead teachers into a program for becoming diagnostically and prescriptively able. The whole concept of diagnostic and prescriptive education must, of necessity, be embraced, since these are underpinnings of the whole activity of educational improvement. Teachers must be trained in the techniques of establishing learning sequences beginning with the very earliest pre-K years and continuing through all the school years. They must create diagnostic tools appropriately related to these sequences. They must create inventories. There must be a program of diagnostic feedback in order to establish a program of individualization leading to achieved competency.

Other items which must be addressed, if there is to be any future at all for the whole school reorganizational program, quotes are those activities which lead to a greater sense of collaboration among teachers, and which, at the same time, draw from that collaboration a greater commitment to the individualization of pupil instruction. The suggestions to be found in many of the proposals (as well as in the operable programs for collaboration) are never truly established. There is a seeming inability to create the mechanical schedules within the school for developing the techniques, approaches and strategies for teacher collaboration. Teacher collaboration, especially in the area of planning, is a fundamental necessity if there is to be a well thought-out, innovative reorganizational program in a school. It is through the collaborative aspects of planning that pupil redeployment and teacher assignments can be made in a more fruitful way. Collaboration brings more specifically worked-out assignments which address real problems and real concerns. It is through their collaborative endeavors that teachers can select appropriate and pertinent material, and establish the criteria for educational performance. It is through these collaborative arrangements that teachers can revise curricula and create opportunities for various sizes of group instructional activities of value in addressing the learner. It is through the collaborative endeavor that teachers can establish programs individual in nature, which can lead to a greater commitment on the part of the learner. These same programs lead to individual contract learning where teacher and pupil, in a one-to-one contractual relationship, pursue an active program of learning. These are the areas in which pupil-team learning programs and programmed approaches are created, wherein teachers serve as "guides" for the learning activities. They, along with their pupil-teams, can serve one another in the oral-practice programs and individual learning pursuits which lead to competence in learning.

The basic needs, needs of major dimensions, are activities, attendant supports and the various behaviors that lead to a continuous implementation of a program.

Future Directions

The directions for PACE should be those aimed at creating a readiness on the part of the teacher to become diagnostically and prescriptively oriented. PACE should aim at endeavors which carefully assess the dimensions of teacher readiness, and then establish programs to deal with particular weaknesses, so that when teachers move into a collaborative situation and diagnostic and prescriptive teaching, they can do so with the kind of insight needed to cope with the problems facing their learners.

If any real commitment toward change is to be gained, PACE should embark on a program aimed at ensuring the mounting of an intensive set of activities designed to alter mechanical organizational vehicles within the schools. Teachers must be able to plan together within the school day. They must be able to offer their efforts in a continuing way, and to make decisions allowing them to expand their services of instruction to their young charges. The alteration of the self-contained classroom; the creation of vehicles to ensure the collaboration of teachers, and the actual implementation of these activities are necessary requisites for the creation of a new era of educational intervention leading to higher levels of intellection, as well as human forbearance.

The major obstacles to change are seen in the fundamental inabilities of people. People unwilling to move, because of these inabilities or insecurities, need to be worked with. The support of programs should be contingent upon education of people so that they can have a major involvement in real educational innovation.

Taxonomies of readiness for implementation need to be established at two levels of operation, first, at the classroom level and then schoolwide. Programs designed to advance creativity in education in the elementary schools of the country, where innovative themes are concerned, are, at this reading, still tentative in nature. Implementation of some of the exciting concepts are nonexistent. This is lamentable but correctable. The correction requires a more forceful set of criteria, criteria which are implementation-oriented. Supportive activities to assure implementation need to be built into all the proposals and evaluations of programs. Energies should be aimed at action orientation, rather than over-emphasizing the verbal enunciation of ideas. Minimizing the length of time for studying a program type and maximizing those activities concerned with strategies for operation and action would seem appropriate directions to take. Commitment to action is essential. PACE could then have a double meaning in its acronym. It could stand for Programs of Action in Creative Education. Action is certainly essential, and long overdue. Any attempts to hasten, support, and sustain action can only reap a more meaningful harvest of educational growth and success.

THE GIFTED AND THE DISADVANTAGED

by A. Harry Passow[*]

As one looks at the current scene in American cities and impoverished rural areas and at the plight of the disadvantaged and the gifted in such settings, any progress is difficult to discern. The recent report of the National Advisory Commission on Civil Rights observes:

> None of us can escape the consequences of the continuing economic and social decay of the central city and the closely related problem of rural poverty. The convergence of these conditions in the racial ghetto and the resulting discontent and disruption threaten democratic values fundamental to our progress as a free society.[1]

Speaking specifically about education, the Commission concludes that "for many minorities, and particularly for the children of the racial ghetto, the schools have failed to provide the educational experience which could help overcome the effects of discrimination and deprivation."[2] Further, it believes that the "bleak record of public education for ghetto children is growing worse." The factors which converge to produce this deteriorating situation are cited as: growing racial and economic segregation; inadequately prepared staff with high turnover rates; overcrowded and inadequately supplied schools; obsolete and poorly equipped facilities; inappropriate curriculum and materials; insufficient funds; poor community-school relations and overall debilitating effects of ghetto environments.[3] A similar analysis, containing many of these same factors, could be made of education in the depressed rural areas.

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[*] Professor of Education, Teachers College, Columbia University.

[1] National Advisory Commission on Civil Disorders, Report of the National Advisory Commission on Civil Disorders, New York: Bantam Books, Inc., 1968, p. 410.

To reverse present trends and to move toward the provision of full equality of educational opportunity for the disadvantaged, the Commission recommends the pursuit of four "basic strategies": (a) increasing efforts to eliminate de facto segregation, (b) providing quality education for ghetto schools, (c) improving community-school relations, and (d) expanding opportunities for higher and vocational education. The specific programs under each of these strategies, suggested by the Commission, have short titles not unlike those found in a listing of Title III PACE projects dealing with the disadvantaged.[4]

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[2] Ibid., pp. 424-425.

[3] Ibid., pp. 426-438.

[4] Ibid., pp. 440-454.

For example, among the illustrative programs suggested by the Commission, are:

> Exemplary city or metropolitan schools offering special courses and programs to attract students of varying social and economic backgrounds.
> Educational parks.
> Improving the quality of teaching in ghetto schools.
> Year-round education for disadvantaged students.
> Improving educational practices in elementary and secondary schools.
> An intensive national program to increase the verbal skills of ghetto residents.
> Expanded experimentation, research and evaluation of effective methods for teaching disadvantaged pupils.
> Elimination of obstacles to community participation in the educational process.
> Developing school facilities to serve the educational and other needs of the total community.
> Use of local residents as teacher aides and tutors.
> Expansion of Upward Bound, and the establishment of special one-year postgraduate college-preparatory schools.
> Linking vocational training programs to job opportunities.
> Expanding part-time cooperative education and work-study programs.

A compilation of Title I projects would overlap such a listing as well, although such programs tend to fall into a limited number of more conventional action projects dealing with remediation (especially in reading and the other basic skills), early childhood programs and enrichment opportunities.

The stated purpose of Title I is "to expand and improve... educational programs... which contribute particularly to meeting the general educational needs of the educationally deprived." PACE projects, on the other hand, are presumably designed to supplement existing programs and facilities, and to create innovative solutions to persistent problems. If the Commission's recommendations are considered as "the cutting edge" for developments in the field of the disadvantaged, many Title III projects do involve the programs and services advocated. And yet, such an observation must be couched with reservations.

The chief reservation might be stated in terms of form and substance. It is possible to operate an early childhood program which has all of the form but none of the substance which could make a real difference in the lives and futures of ghetto children. It is possible to install a variety of new media and instructional materials which have no more relevance to minority children than did the old resources. It is possible to flood a school with new, and supposedly more appropriate, curricular materials, without providing for the education of the staff in terms of knowledge, insights, attitudes and values essential for the meaningful use of such materials.

In short, unless adequate attention is given to the critical elements of programs which are substantive, little real difference is likely to occur in the development of the disadvantaged pupil population. Since PACE programs are intended to be innovative as well as exemplary in nature, the requirement of a clear rationale for the inclusion of particular elements or components in a proposal would not seem unreasonable.

In making its recommendations, the National Advisory Commission on Civil Disorders suggests no priorities for the basic strategies it urges city school systems to pursue. It could be that education in the ghetto, and to a lesser extent in depressed area rural schools, is in such a state that programs must be developed in all four areas simultaneously, or that well-designed and carefully planned programs in any area could have a significant impact. However, the cafeteria-eclectic approach has evidenced severe limitations in the past, and there is little to suggest any greater promise for the future.

As for the education of the gifted, the past few years have witnessed a sharp drop in activity and program planning. To some extent, there has been a consolidation of what has been learned from the research and planning of the dozen years or so since the beginning of the "third wave of interest" in the 1950's. However, some of the practices and programs developed for the gifted and the talented seemed incompatible with mounting pressures to provide for the disadvantaged and the racially isolated. Both concerns—education of the gifted and of the disadvantaged—can be seen as aimed at identifying and unlocking individual potential. However, school systems seem to find many provisions in conflict with one another, with the result that programs for the gifted have either been eliminated or substantially curbed in city school systems.

Few school systems have really tackled the problems of identifying and providing for the gifted and the talented among disadvantaged pupil populations. Since existing instruments and procedures tend to miss potentially gifted individuals among the disadvantaged, few programs have been developed for nurturing the talented. Perhaps the city school systems are so overwhelmed by the magnitude of the educational problems to be faced in their inner-city schools that the development of an appropriate provision for the gifted and talented seems to be not only peripheral, but a luxury as well.

As long as school systems interpret educational provisions for the gifted as meaning programs for the white, middle-class, motivated youngster, there will be a decline in such programs and a neglect of talent development efforts for both the advantaged and the disadvantaged. The consequence of this decline in provisions for the gifted, and the neglect in tackling the problem of talent development among the disadvantaged, will undoubtedly lead to an intensification of the problems of the urban school systems—continued white and middle class flight from the city public schools, continued atrophy of talent potential, and a general dissatisfaction with the quality of education.

Some time ago, McClelland hypothesized that "talent potential may be fairly widespread, a characteristic which can be transformed into actually talented performance by various sorts of the right kinds of education." The really innovative efforts, the cutting edge, may well be those programs designed to increase understanding of the meaning of "the right kinds of education"—with individualization and differentiation as instructional concepts rather than organizational forms. As pointed out in an earlier report, education of the gifted as well as of the disadvantaged, must deal with the basic structure of the educational enterprise as a whole—including content, sequence, methods, resources, staffing, relationships, et cetera.

Obstacles to Progress

The lack of progress in upgrading education in central city schools has highlighted the web of interrelationships of which education is a part. Political power, housing, employment, welfare, transportation and health are all parts of the inner-city condition which impinge on the educational process. An obstacle to adequate Title III planning may well be the lack of real involvement of pertinent sectors in the planning process and in dove-tailing programs. While the school must serve as the catalyst for comprehensive planning, other agencies must be brought in from the beginning. The involvement of other cultural and educational resources in all appropriate aspects of planning and conducting project activities of Title III programs, must include key social, welfare, economic, health and political groups where appropriate. For many inner-city programs, liaison with the welfare department, the health clinic, the day care center or a potential source of training and employment may be far more crucial than with a library, a museum or a zoo. Such involvement must be real, and it must commence in the early stages of planning. In the initial stages, as school personnel and others gain experience in planning together, considerable difficulty can be anticipated. However, these difficulties must be resolved, and not by abandoning joint planning activities.

Another obstacle to planning is the failure to assess needs and to establish program priorities. It is often argued that the inner-city and isolated rural schools face such myriad problems that wherever they take hold could conceivably make a difference. However, sufficient research and experience are available to suggest that some areas have greater pay-off promise than do others—areas such as new approaches to staff training and development; building relevant and meaningful curricula; developing close and continuing relationships between education, training and employment; and parent education combined with early childhood programs. Similarly, priority assessment would provide more adequate criteria in determining what should be included in educational service centers designed to supplement existing programs and facilities. Visibility and novelty alone are not sufficient criteria for deciding what to supplement, and how.

The past few years have witnessed the emergence of new conditions which place at stake the future of urban education and of urban societies. The "Riots Commission" Report merely detailed the seriousness of the situation in America's cities, and confirmed the critical need for intelligent action now. The report, together with other studies (e.g., The Coleman Report, the Civil Rights Commission report on racial isolation, and the Study of the Washington, D. C. Public Schools), points to the need for attacking on many fronts. Quite obviously, Title III PACE project alone will not determine whether the deteriorating condition of America's cities can be halted. However, as the most flexible and open-ended of the ESEA programs, PACE could have a significant impact if city school systems use Title III resources to develop more imaginative solutions to urban problems. Rural areas, capitalizing on the provisions for supplementary services and centers, could multiply and upgrade programs for their students.

Of the six PACE priorities set forth last fall, five were directly related to the education of the disadvantaged and the gifted. These included projects to improve education in core cities, to provide early childhood education, to individualize instruction, to provide quality education for minority groups, and to improve education in isolated schools. These priorities can be justified and supported on state as well as national bases. In fact, a strong case can be made for the restriction of PACE funding to proposals in these priority areas, and for the establishment of detailed priorities within each of these areas.

There are political implications for such a proposal for it would call for a policy of unequal funding, of "positive discrimination" in favor of the cities and the isolated rural areas, and of allocation of relatively restricted resources to the most critical areas. What has been called "the agony of the cities" is, in reality, America's crisis. By concentrating on the urban problem "whole"—not just in terms of the ghetto of the inner-city—and by focusing innovative energies and personnel resources on these problems, the potential impact of the schools will be enhanced.

Future Directions

Thus, the suggestion is made that the future direction of PACE be focused on the urban and the impoverished rural areas. Within this framework, the critical problems which must be dealt with include:

a. Staff development. The recruitment, training, induction and continuing education of personnel for all types of work (professional, paraprofessional and volunteer) in urban and isolated rural areas. New and different relationships are needed between school systems and institutions of higher education.

b. Curriculum development. The building of relevant programs and instructional processes to cope with the conditions of urbanization and isolation. At the macro-level, instructional systems are needed which will provide for diagnosis and individualized learning systems, which will provide for both cognitive and affective growth, and which will give meaning to the expression of "quality of opportunity."

c. Community development. Attacking urban problems by combining the efforts of various agencies and institutions from public and private sectors. Unless joint ventures can mobilize the resources needed to cope with community problems, the inroads made by any single agency will remain restricted. The difficulties encountered by OEO Community Action Programs point up both the need, and the barriers to, community planning. Historically, and especially in the inner-cities, schools have tended to keep themselves aloof from their communities. They must now learn how to function in a meaningful way.

d. Comprehensive and continuing programs. Concern for the disadvantaged has resulted in the widespread acceptance of early childhood education as part of the total educational responsibility. Articulated programs are needed at all levels. However, urban schools have been particularly weak in the areas of vocational education, manpower training and redevelopment, continuing education for youth and adults, and parent and family education. For adults, gainful employment and acculturation to urban living are key needs for which the schools, in concert with other agencies and institutions, must make available more adequate provisions and services.

The above suggestions for future directions of PACE are not exhaustive, of course. They are not unlike those of the Advisory Commission on Civil Disorders, for that group accurately described the educational task of the urban school in the context of larger social ills, and correctly linked the problems of the inner-city with those of the impoverished rural regions. Yet, if the cities are to survive, planning must be comprehensive. The urban population in schools is not simply an agglomeration of impoverished, racially isolated youth. The urban schools must educate all pupils with all their ranges of differences in ability, interest and motivations. Unless provision is made for the widest range, from the very able, highly motivated, self-assured pupil to the less able, apathetic or hostile, self-denigrating child—the result will be an intensification of the present downward spiral.

The "band-aid" approach to the problems of the city has simply not worked. What are needed now are creative and innovative approaches—new and different solutions to old problems. This, of course, is precisely the goal of PACE. If, in the new framework, individual states and consortia bring new ways of planning Title III programs, new means for sharing and exchanging insights and experiences, and new techniques for dissemination, then PACE will have an impact commensurate with its potential. There are many obstacles to the realization of these things: personnel, bureaucratic rigidity, the freezing of communication channels, selfish concerns, and so forth. However, the emergence of the few highly creative, substantive proposals and programs in the first two years of PACE is sufficient basis for optimism for the future.

CLASSROOM PERSPECTIVES

by Joseph B. Rubin[*/]

The important developments in the area of "classroom perspectives" are not new ones. They are ideas that teachers have thought about, and some have known them well. They are ideas concerned with the kind of education designed to help each person become self-directing, self-realized. They facilitate competency in individuals, and aim at developing in every child a confidence in his ability to be self-directing as well as in his ability to deal well with others. The creation of this kind of learning atmosphere is a major responsibility of the teacher. Classrooms should promote the "becoming process," giving an adequate life space to each individual.

The education of children in the school is changing. Now, it is necessary for teachers to have control of the so-called process goals which help students to acquire, interpret, evaluate, and exchange ideas. Raising education's aims for the child to the level of consciousness of

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[*/] Teacher, Chapman Elementary School, Portland, Oregon.

the child himself is something teachers should do. Unless a youngster understands the purpose of school, and learns to accept it, it must often seem an interference with his privacy.

No learning is easy, and nothing we can do will make it automatic. But if we take each child into our confidence, he will apply greater effort in teaching the goals he sees as important. In this changing world where lifelong learning is indispensible to success, perhaps the most important thing we can teach a child is how to go about his work and how to do it well.

Important Developments

It should be noted that LEARNING is a change in behavior, resulting from the interaction of the organism with its environment. Learning is dependent upon activity or special training, and in this sense, it differs from behavior change which is due solely to maturation. Therefore, all children:

- Can learn and want to learn.
- Can learn to be self-directing.
- Learn best what is meaningful and important to them.
- Can learn to use library and resource center facilities.

Since TEACHING is the creation of a learning environment, it is, therefore, necessary that teachers:

- Use individualized instruction geared to the interests and needs of the children.
- Become directors of learning, helping children with their tasks at hand.
- Develop a passion for learning, since apparently boys and girls will have to go on learning, unlearning and relearning all of their lives.

PACE Developments

Of the Title III programs examined, this consultant found:

1. Some projects are using a continuous evaluation to determine stages of learning and amounts of progress. Also evident is the adjustment in purposes and planning of the next steps as the learners proceed.

2. Some projects are designed for learners to become involved with what is important and meaningful to them. Emphasis is placed on individualized instruction, where a person can become committed to something he sees of value to him.

3. Some projects are distinctly showing the contrast between two approaches to learning: learning as growth, and learning as acquisition. Most program rationales can be identified as including both approaches.

4. Some projects are concerned with the skills of self-evaluation and self-direction, recognizing that the attitudes which

are acquired along with the subject matter may be even more significant than the subject matter itself.

Major Obstacles

Assuming that at least some PACE projects do not reflect the "cutting edge" dimension, what are the major obstacles which prevent this achievement? Suggested major ones are:

1. Programs operating with emphasis on outcome, achievement and expected conformity. The teachers' efforts are directed toward bringing students to pre-determined goals.

2. Learning considered as an acquisitional activity. For some, learning and acquisition were practically synonymous. Learning in a conventional sense required giving evidence of memorized material.

3. Many obstacles are the result of attempts to reach the individual as a person. Operating under this precept, these schemes do not allow learners to make decisions or choices. In no way are interests, needs and concerns of much importance. These programs are individualized only in the sense that those involved may pursue what is expected of them, at their own rate, in their own way.

4. Responsibility for learning is held by the teacher or the "classroom manager." It is not transferred to the students at whom

the instruction is aimed. For these students, the educational experience may seem remote, often obtrusive.

Future Directions

It would appear that future directions for PACE should include:

1. The availability, upon request, of personnel from the U. S. Office of Education to help school districts (specifically, the smaller ones, without staff or funds enough) to try to solve their problems imaginatively. If we are to find a balanced distribution of state Title III funds, this availability is imperative.

2. The release of information discussing current Title III projects, pointing out the specific goals and objectives, along with some of the evaluation techniques. Information on the actual procedures utilized would be helpful. A great deal more dissemination of information on project results, emphasizing their strengths and weaknesses, successes and failures, should be made available to those who might benefit from such knowledge.

   Recommended:

   a. PACE periodicals available in larger quantities.

   b. Documentary films discussing Title III in relation to effecting educational change.

3. Requiring state Title III coordinators to attend the Office of Education's briefings on current PACE developments. The placement of emphasis on the operating programs, giving both an analysis

and interpretation, along with a discussion of pertinent data from terminated programs.

4. The development of evaluation guidelines to assist those who are operating Title III projects. Specific suggestions explaining the use of continuous evaluation, showing how this feedback can be used as both guide and directive toward further planning. Such a guideline could be prepared by the USOE or by another agency.

COMPUTER TECHNOLOGY

by Don Bushnell[*]

The application of computer technology to educational programs may be one of the least unmixed blessings of this technical age. The potentially enormous benefits of rapid, convenient data storage and retrieval must be balanced by the computer technologists' demands for standardization and programmed control over the learning environment. Computer-assisted instruction could individualize the learning process; but as it is being applied today, it is regimenting instruction and pigeon-holing the learner.

Computer Assisted Instruction (CAI), as it is overwhelmingly applied in the few major school districts that can afford it, is an automated means of dispensing information in the drill and practice mode of instruction. Students type answers to a programmed instructional sequence or respond to multiple choice selections in a paced presentation of spelling or word lists. The computer matches these responses with a string of correct words stored in its memory. If there is a match, or a suitable synonymn is found, the computer responds with an appropriate reply and the sequence of operation proceeds. The pedagogical model here is the standard teacher operation of test and retest in a fully programmed atmosphere in which all conditions of the stimulus and response cycle are anticipated (or thought to have been anticipated) by the programmer or instructor.

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[*] Vice President and Director, Research and Development, Brooks Foundation, Santa Barbara, California.

As David Stansfield states in a recent article in Educational Technology, "the chief weakness of any type of automated instruction is that it cannot cater to unanticipated responses from the student. If the student, quite reasonably, responds to the question, "What do cars run on? " with the word "roads" or "wheels" or even "faith" or "credit" (instead of "petroleum") or whatever it is, all the computer will be able to say is "Your answer is wrong, try again. "

The computer could be programmed with every possible response the student might be anticipated to make, but this would use up memory in short order. The basic point here is that with the relative inflexibility of the systems being applied to CAI, what can CAI offer our schools in the present that merits support through PACE? The answer would have to be not much. It is my opinion that CAI, in its present form, should be kept on an experimental basis for the next few years.

In a recent issue of the Review of Educational Research, Karl

Zinn describes basically three modes for using the computer in the instruction of public school students. The drill and practice mode has already been described above in which the student can only do what the program allows. Zinn comments that if, in this mode, economic criteria are important, users of computer-based drill exercises must also consider alternative ways of achieving their objectives for student learning. Skills might be acquired more efficiently through paper-and-pencil exercises, or more pleasantly through interaction with other students, or more effectively as side benefits of more complicated problem solving tasks aided by the computer.

Future Developments

Language instruction in the drill and practice mode of CAI does hold promise for future PACE support—or at least it should be kept under close surveillance as it develops. In two projects that come immediately to mind, the power of the digital computer is being put to proper use even though the rigidity of the course of instruction is still present. As reported by Zinn, the State University of New York at Stony Brook is using its computer to provide exercises in aural discrimination, vocal reproduction, aural comprehension, and writing. Typed responses are handled automatically, vocal responses are replayed, and a self-rating by the student is used in the decision algorithm. The curriculum designers did not intend the materials to provide a complete course; the students meet for a few hours of classroom instruction with a language teacher. This instruction is then supplemented by a few hours in the CAI laboratory. All drill is provided by CAI which allows for classroom time to be devoted to oral practice.

At the University of Michigan a student learning station was especially designed around a small computer for use in training prosodic characteristics of speech. The automated system is programmed to assist the student with three aspects of pronunciation: intonation, emphasis and spacing of syllables. The device plays a model word or phrase as spoken by a native-language instructor and previously recorded on magnetic tape. The student responds as in the usual language laboratory, but as he does so the characteristics of his pronunciation are compared with those of the record model just played for him. The extent and direction of discrepancy in pitch, loudness or tempo are displayed immediately for him on a meter device that registers in the center of a dial when his pronunciation is perfect, and deviates to the left or right if his pitch is too low or too high, his emphasis too faint or too strong and his pacing of syllables too slow or too fast. These two developments in creative application of the computer will someday serve as good adjuncts to the standard language laboratory. But before such applications are available to PACE Centers, they must be tested and retested in the university laboratory.

As a summing up of CAI and its application in real school settings, it is appropriate to quote Zinn directly: "The benefits unique to computer presentation of text and test material have not yet been demonstrated. . . Few of the computer-based lessons have made much use of capabilities beyond those which can be accomplished with printed formats for tests and programmed instruction. In these cases, the computer may have played a significant role in improving instruction by helping the author through more careful organization, testing, and revision of materials. However, in the end his self-instruction package may be presented to students almost as effectively (and with considerably less time and cost) in booklets and audio-visual modules."

Vocational education is an area of promise for PACE. Automation is creating many new national problems in employment. There is a fast growing need for appropriate automated vocational training techniques in the future. Semi-automation in vocational education and dynamic simulation for on-the-job training are now technically feasible.

A number of innovative, intensive training programs have evolved from research with manned space-craft. Men have been placed in intimate operational contact with larger, computer-centered, information processing systems (called simulator trainers) in extremely complex task environments. In such environments, much has been learned about the human capacity for absorbing information and making quick decisions. Simulator trainers will increasingly be able to sense human actions as well as to present alternative programmed learning situations.

Among the immediate vocational training applications of such complex equipment are electronic maintenance, automated industrial operations, automated warehouse handling, and similar occupations. Vocational training programs in the PACE high schools should be designed to provide terminal skills training for specific jobs as well as vocational experiences that can amplify purely academic and pre-professional courses.

Scheduling is another future direction. Even in a traditional school program, manual scheduling has become increasingly complex and time consuming. The educational data processing system can greatly facilitate master scheduling and student assignment. Two families of computer programs have been built for generating master schedules that encourage curricular innovation and accommodate the needs of individual students. These are the General Academic Simulation Programs (GASP), developed at Massachusetts Institute of Technology, and the Stanford School Scheduling System (SSSS), devised at Stanford University. Both of these scheduling approaches have been tested in over 100 school systems and are undergoing continual refinement. While specific applications of flexible scheduling programs have been greatly increased under PACE, future applications of technologically aided scheduling should continue to be increased.

Facilities planning holds much promise for the future. The introduction of computer technology can expedite improvements in physical facilities. Computer modeling of future school buildings can be based on up-to-date information about population trends, projected finances, curricular aims, etc. Even in existing school buildings, the computer can aid in studies of room utilization, traffic patterns, attendance to displays, etc., so that existing facilities can be put to more effective use. A model of the Denver School System has been recently announced as available from the Colorado State Department of Education.

In summary, it should be stated that the computer, through PACE support, could become one of the unique tools in the depository of instructional technology, to free the student and the educator from the shackles of a too rigid system. What is being proposed is a means to *let the technology* revolutionize the educational system, not reinforce it.

SUPPLEMENTARY SERVICES CENTERS

by Ira J. Singer[*]

A new era in the life of Title III is upon us. The future of Title III as a generator of educational atomic energy has not been entrusted to State Advisory Councils and educational agencies.

This new responsibility of the states is clearly described in preliminary recommendations for the design of a state plan, published by the Office of Education earlier this year. After defining the functions of the State Advisory Council as advisory to the state educational agency "in the preparation and administration of the state plan, and in the development of criteria for approval of applications under the state plan," the Office of Education document goes on to define as further functions of the advisory council, the "review and recommendation of all applications for grants under the state plan... the annual evaluations of all projects funded under the state plan... an annual report by the state advisory council of its activities, recommendations, and evaluations under the state plan to the U. S. Commissioner of Education and to the National Advisory Council." The preliminary guidelines also provide that the state educational agency shall appoint the advisory council, employ the staff "to be utilized by the State Advisory Council in executing its responsibilities," design provisions for review, recommendations and evaluations of all projects by the advisory council, and administer and supervise all programs operated under the state plan.[1]

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[*] Assistant Superintendent, West Hartford Public Schools.

With the shifting of Title III power and funds from federal to state agencies, it is now the obligation of the latter to execute faithfully the initial intent of Title III, recently restated as follows by the Title III National Study Team:

1. to provide venture capital which the nation's (state's) schools could draw upon to experiment with new ways to meet old and new needs, and to find better ways of performing their customary services;

2. to encourage the establishment of supplementary education centers of particular relevance to the central cities;

3. to encourage the 50 states and territories and their 22,000 school boards to form neighboring consortiums and regional

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[1] Regulations Pursuant to Title III of the Elementary and Secondary Act of 1965, U. S. Department of Health, Education and Welfare, Office of Education, Draft Copy, February, 1968, p. 8.

arrangements, to pool better their resources to attack common problems;

4. to assist the schools in mounting demonstrations of promising new practice, to conduct them, and when finding them good, to make them broadly known.[2]

Previous reports published by members of the Title III National Study Team analyzed the substance and quality of Title III projects funded during the period of federal administration. There is general agreement among the panelists that Title III is both essential and promising. While one can score the lack of truly inventive proposals during the infant years, one cannot deny the many unique educational ideas and essential services which have been introduced across the nation.

Many successful Title III plans have served several districts simultaneously. In fact, regionalization is the major political result of the passage of Title III. Public and non-public schools, cultural institutions, medical facilities, governmental units and other diverse agencies have combined to produce educational progress on local, regional and state levels. Since a union of such resources is essential to the success of the supplementary services center, state advisory councils should continue to support these cooperative ventures.

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[2] "The Continuation and Strengthening of Title III," Memorandum from the Title III National Study Team to the Commissioner of Education, April, 1968.

Universities, school districts, cities and suburbs can no longer go it alone. Invention is rare and must be shared. Information about new and exemplary instructional programs and practices should be exchanged and studied by educational practitioners everywhere. The costs for new services, staff, building, supplies and equipment must be shared. As student numbers increase from a 1965 total of 54.7 million to a 1975 figure of 63.3 million, local taxpayers will expect state and federal sources to assume a greater share of the costs of education.[3/] Hopefully, the transition of Title III authority to the states will spur legislators to devise state aid formulae, capable of supporting and replicating exemplary programs initiated under Title III, upon expiration of federal funding. Successful Title III centers can be state prototypes for permanently state aided cooperative services centers similar to New York State's Board of Cooperative Educational Services Centers (BOCES).

The typical state can offer a cross-section of Title III centers, featuring pupil personnel services; diagnostic clinics; computer systems for the storage of research and administrative data; pre-school readiness and dropout prevention programs; cultural, health and vocational projects; guidance and social services for deprived children; curriculum development services; graphics and materials production

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[3/] "Projections of Educational Statistics to 1975-76," U. S. Department of Health, Education and Welfare, Office of Education, 1966.

agencies; teacher training programs dealing with new instructional strategies; human relations and the observation and analysis of learning and teaching; and outdoor education programs.

Prior to the adminstration of Title III, these programs were frequently offered on a fragmented basis by local school systems, or else were totally ignored. The need for such services was undeniable, but money and courage were lacking. Title III provided "thinking money," as well as a national psychological commitment to will, courage, and creativity.[4] The educational "oddball" found a friend in Title III. Boards of Education and superintendents of schools unwilling to commit local funds to provocative but unproven ideas, and fearful of risking personal and collective reputations on "unique" proposals, found renewed courage in the passage of PL 89-10. New programs popped for the physically and emotionally handicapped, information retrieval and data processing, in-service training, film libraries, vocational courses, etc.; not truly inventive perhaps, but new and necessary to the sponsoring agencies.

Why were such services suppressed for so long? Title III proposal writers indicated time and again the inability of the applying agency (local or regional) to fund the projected activity under existing financial limitations. Other realities cited by project directors included the lack of fiscal independence, taxing limits, disinterested state legislatures, provisional boards of education, inadequate state aid and lack of money for research and development.

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[4] National Study Team to the Commissioner, loc. cit.

Advisory Councils should know that supplementary service centers need not be the products of earthbound thinking. Title III centers should be designed:

1. To serve as urban communications centers, incorporating audio and video program banks available through dial retrieval to people living throughout the city. Pre-selected video and audiotaped programs could be packaged and transmitted to display stations installed in tenement lobbies, supermarkets, laundromats, schools, libraries, hospitals and universities. These programs could contain information ranging through such topics as employment and housing opportunities, transportation instructions, legal procedures and medical information. For school purposes, direct skill teaching tapes in typing, speech therapy, musical and athletic skills, sculpture, public speaking, etc. could be offered. The potential is phenomenal, and the hardware is available. High transmission costs and lack of pertinent software are formidable obstacles to the immediate success of such electronic networks. Nevertheless, it seems incumbent upon state leadership groups working under Title III to encourage solutions to such problems through experimentation with regional audio-video information retrieval networks.

2. To extend beyond the borders of "education." New

instructional techniques and technology should be employed to convey information and service in the areas of health, welfare, law, transportation, housing and employment. Community oriented job centers, housing offices, medical clinics, legal aid societies, facilities for performing arts should be housed alongside school-oriented, audio-video program banks, handicapped children's programs, in-service teacher training centers, film libraries, data retrieval centers, graphics and publications services, and modest television production facilities for the preparation of special videotapes to be transmitted to the community as new needs arise.

3. To incorporate a combination of service, research, and planning programs. Title III centers should be more than hardware exhibits catering to a now-and-then clientele of curiosity seekers. The permanency of supplementary services centers will be assured when the functions such centers perform are considered paramount to the forms they take. Services (graphics, publications, etc.) create a bond of identity between the center and its users. At the same time, research and planning must occur so that intelligent decisions to terminate, continue or expand on-going projects can be made. The Title III National Study Panel has contributed several papers on evaluation which should be studied by State Advisory Councils. It is important that state agencies and advisory councils achieve literacy in certain new trends in the field evaluation of Title III projects. Reports by

Guba, Stufflebeam, and Stake describing evaluation models for Title III field projects should become required reading for teachers, administrators, consultants, state department and other project personnel.[5/]

Advisory Councils will be hard-pressed to make politically "strategic" Title III allocations throughout each state. Proposals for supplementary centers should be distributed to disinterested, out-of-state content consultants in order to ensure objective, impartial appraisals. The involvement of such consultants would be insurance against a Title III statewide plan which might fail to give priority to the urgent needs of the cities or to the local educational agency proposing a unique and creative program, but lacking the initial protection of a regional umbrella.

It is imperative that state authorities not permit Title III centers to degenerate into carbon copies of established programs. It is proper to transfer and apply good ideas adjusting for local variables.

[5/] Miller, R. I., ed., "Notes and Working Papers Concerning the Administration of Programs Authorized Under Title III of Public Law 89-10, The Elementary and Secondary Education Act of 1965," Subcommittee on Education, United States Senate, April, 1967, pp. 305-320. A second study prepared by the Title III National Study Effectiveness of Evaluation Sections in Approved PACE Projects with Recommendations for Improvement," February, 1968, contains pertinent material by Guba (Chapter V, p. A-203), and Stake (Chapter V, p. A-218). Stufflebeam's model for the evaluation of Title III proposals is contained in his paper, "The Use and Abuse of Evaluation in Title III," Ohio State University, Evaluation Center, Columbus, Ohio, July, 1967.

It is also proper to attempt to improve the condition of education through regional sharing of high quality services. Nevertheless, it would be contradictory and wasteful to violate the original spirit of Title III by failing to encourage, identify, and fund educational invention and creativity, wherever it is found.

SCHOOL-COMMUNITY RELATIONS

by John W. Letson[*/]

Recent events in New York as well as in other communities throughout the country have highlighted the importance of developing more effective school-community relationships. Typical patterns which have developed over the years are not adequate for the stormy present. The urgency of discovering new and better ways of assuring that the school and the community it serves move together toward the accomplishment of common goals is attested by the tragic events which are so much a part of the current school story. It would be incorrect to assume that spot news accounts present the full picture because to a large degree it is still a case of "man bites dog." It would be equally shortsighted, however, to fail to recognize the danger signals as they appear.

If used to its maximum potential, ESEA Title III provides a way to accomplish improved school-community relationships. There is

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[*/] Superintendent of Schools, Atlanta Public Schools, Atlanta, Georgia.

considerable evidence to indicate that this full potential has not yet been realized, but there is also evidence that progress has been, and is being, made.

The following comments are related to a review of 30 selected projects illustrative of efforts directed toward the expansion and/or improvement of school-community relationships. Broad generalizations are frequently in error as they apply to specific cases, and the evaluation of PACE projects is no exception. Outstanding exceptions to the following generalizations can be found among the 30 projects reviewed. This is further evidence that Title III, if its potential is fully realized, can make a vital contribution in the area of school-community relationships.

1. Many projects were aimed at the development of additional services, obviously needed and excellent in themselves. *In too many instances, however, these additional services were not considered an integral part of the ongoing school program.* It often appeared as though the school intended to continue its program as usual with the hope that deficiencies would be taken care of through the special project without "interrupting" the normal school operation.

2. Only a few projects were directed toward the discovery and implementation of new patterns of school-community relationships, although a number had the potential for doing so. There appeared to be more interest in doing things *for* the community than *with* the

community, and the potential for establishing new patterns of school-community relationships was more incidential than by specific design.

3. Most, if not all, Title III projects could appropriately include a community involvement component which would contribute to improved school-community relationships—not from the standpoint of merely providing information about the project, but for the specific purpose of improving results through effective utilization of community human resources.

4. Many projects appeared to be designed in a manner which would permit their discontinuance without serious consequences. This is understandable in view of the fact that many local budgets would be unable to absorb project costs. It is nevertheless true that needed improvements in school-community relationships cannot be accomplished by special projects alone. Such improvements must come through a total school commitment, and special projects should be a part of the total undertaking.

5. The financial shock resulting from the expiration of a Title III grant could be cushioned somewhat through the design of projects which would incorporate funds from several sources. This approach would also contribute to the desirable goal of making the project an integral part of the ongoing school program in a way that would help assure maximum impact. Lasting improvement results not so much from the addition of "separate" school-community

activities as from an expanded concept of the role of the school in this area and from the increased competence of the total staff.

6. Several school-community projects were directed toward an expanded school program utilizing school personnel and physical facilities in the afternoon, evening, and throughout the summer for both school age pupils and adults. There is an urgent need for more developments in this direction. Also, projects of this type point the way and set the stage for realistic community involvement in the total program of the school.

Current questions related to community control of schools as opposed to community involvement would also be answered, at least in part, as the school moved toward becoming the kind of institution that was more concerned about the needs of the total community. This goal can be achieved in many school systems through proper utilization of existing federal resources, including Title III. If this need were given special emphasis, Title III could stimulate developments which would expand the role of the school and contribute substantially to improved school-community relationships. Several excellent projects demonstrate this fact.

7. Vocational education offers many possibilities for developing improved school-community relationships. In general, however, few Title III projects have been directed toward achieving an improved vocational program. This fact is further evidence that

there now exists a separateness—vocational education, on the one hand, and general or academic education, on the other—which should be eliminated. A forward step in this direction would be to finance a part of the vocational program from sources other than vocational funds. Title III should not overlook the needs in the vocational area and should not fail to utilize the techniques for community involvement that vocational education has developed. Many urban problems will respond to the County Agent-Home Demonstration Agent approach.

Local-State-Federal Relationships

Congressional action transferring the administration of most of the Title III program to the states has far reaching implications for the future of the program. The action has both advantages and disadvantages:

1. In the drive toward educational change and improvement, little is accomplished by attempting to circumvent what frequently has been referred to as the "establishment." If the establishment is a roadblock which restricts or prevents desirable change, it is still more fruitful to work to change the establishment than to try to circumvent it.

2. All state departments of education are not equipped to exercise the dynamic leadership that is urgently needed to continue the forward thrust that Title III has thus far stimulated. Because of

this fact many individuals may view the change in administration of Title III as a tragic mistake. If viewed in proper perspective, however, a possible short-range mistake can become a long-range advantage.

The structure of public education is such that few fundamental, lasting improvements can be generally accepted and put into operation without the support of state education officials. At present this is a moot questionbecause the change in administration has been made, and unless the structure is changed again, which is doubtful, there is no alternative but to work within the congressional decision as it now stands. This does not release the U. S. Office of Education of its responsibility for leadership. As a matter of fact, this responsibility is increased and emphasizes again the urgent importance for all concerned to understand the dimensions of the term. Leadership and authority are not synonymous and frequently are not even compatible. Leadership can, and must, be exercised at the federal level to assure the continuation of high quality Title III programs and the ultimate accomplishment of the far reaching purposes for which the Title was established in the first place. Leadership, especially at the federal level, is best exercised when it is not confused with authority.

3. Under state administration there will be a natural tendency to spread Title III funds in a manner which assures participation by all systems in the state. This approach will likely dull the "cutting

edge" that Title III was established to stimulate, but in the long range view may also have some advantages. What is the cutting edge for one system may be an outmoded approach for another. Although it should never be necessary to discover the wheel all over again, it is also true that a school system improves by moving from where it is. Certainly, efforts should be made at least to stimulate a start on the part of those systems that have so far to go. Spreading of Title III resources can contribute to the accomplishment of this purpose.

4. Cooperative efforts involving a group of school systems banded together for the better accomplishment of common objectives represent some of the most successful Title III projects. State efforts to spread Title III resources in a manner to involve all systems will likely stimulate the development of more cooperative projects. This will be moving in the right direction and might ultimately result in desirable changes in district lines.

Comments-Recommendations

1. Flexible funding periods should be established for Title III projects. It is not consistent with the purpose of Title III to assume that all projects should continue in operation for the same length of time. The funding period should be related to the purposes to be achieved, which might be more or less than three years.

2. Project proposals which utilize funds from several

sources should be encouraged. The importance of this approach is not reduced under state administration and should be facilitated through the cooperative development of guidelines.

3. Restrictions on the use of Title III funds for building construction should be removed. Obviously a proper balance should be maintained between construction and program, but it is unrealistic to assume that there is no relationship. Also, it is most unlikely that a project involving construction will be abandoned at the expiration of the project period.

4. Packaging (projects utilizing funds from several sources) should not be left entirely to local initiative. Within present legal requirements it should be possible to combine categories, sources of funds, and guidelines to encourage broader approaches to the solution of educational problems. Unless encouraged to do otherwise, many states and local systems will interpret guidelines in terms of the letter rather than the spirit of a regulation. Many individuals think it is unrealistic to hope that leadership in this direction could come from the federal level. There is considerable evidence to indicate that the spirit of the law is frequently violated at state and local levels. Of all the federal programs directed toward the improvement of education, Title III is probably the most appropriate one to exercise leadership in this area.

5. Title III funds administered at the federal level can be

effectively utilized to preserve current efforts to encourage the development of exemplary programs. Continuation of such programs could then move to financing through state administered funds. It is believed that such efforts would also contribute to the development of the right kind of federal-state relationships.

6. A high priority should be assigned to projects designed to prepare teachers to cope with situations resulting when school-community value systems are different from their own. Title III-EPDA might appropriately join forces here.

PRIORITIES FOR PACE

by Robert J. Havighurst[*]

This memorandum is based on the proposition that each state, in the future, will have from $500,000 to $10 million from the Federal government to use for the improvement of its educational system through experimentation, demonstration and evaluation of new practices. The amount for each state will depend primarily on its population, though it may quality for supplementary funds if it establishes and maintains an excellent program.

Four general types of programs or projects may be supported by PACE funds:

1. New and highly experimental projects, carried out by creative people on a pilot-project basis.
2. Demonstration and dissemination of new practices that have been tested and proven.
3. Supplementary centers with programs that serve a number of public and private schools in a community.

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[*] Professor of Education, School of Education, University of Chicago.

4. Cooperative programs which pool the resources of several school systems to meet needs that they are too small to cope with otherwise.

The amount of money involved will not be great, when compared with the total state budget for education. This money should be kept fluid and should never be tied up for more than two or three years on a given project without a thorough evaluation and deliberate decision on the advisability of continuation for a second and final two or three-year period. A great danger is that the money in the fund may be committed to a set of reasonably good programs which cannot be funded by the regular budget of the state, or by the local community. In this case, these programs might become quasi-permanent, standing in the way of the main function of PACE, which is to try out and evaluate innovations.

In order to maintain fluidity and efficiency of use of the fund, there might be a small State Commission on Educational Development, consisting of leading citizens, with an executive secretary—full or part-time—who is not in the State Department of Education. He might be a faculty member from one of the colleges in the state. This Commission might issue annual reports as well as news releases at auspicious times.

Whether this State Commission should have the power to receive proposals and allocate the funds is not clear to me. Perhaps it should have this power, though there might be considerable resistance from the State Department of Education. It might be better for the State Department to set up its own machinery for allocation of the funds, and to regard the State Commission as a friendly but independent observer and judge of its performance.

Public information. This kind of agency would need to do a skillful job of reporting to the public on PACE projects and on the PACE procedure for stimulating creative innovation. The support of the public would be needed for the continuance and extension of innovative projects. Therefore, this agency would need to establish in the state an atmosphere favorable to innovation, and favorable to the support of innovations that have proved valuable and viable in the school system.

Suggestions for the State Program

Each of the four types or categories of projects referred to above might be adapted to conditions in the state. Perhaps the following suggestions would be useful.

1. New, experimental projects. These projects should generally be small in scope, carried on by individuals or teams of people who can demonstrate both a drive for innovation, and competence in the area they choose to develop. Some preference should be

given to younger people, partly because they could not easily secure support elsewhere.

The local school system might be asked to supply some support for the project in those cases where the cost is fairly large and the school system has a large budget. At the very least, the superintendent should write a letter of support for the project, and he should indicate that the person or persons in the project will be given as much informal support and assistance as possible.

An area of special importance for the future is that of the arts and humanities. New curriculum materials and new courses in this area might be given some priority. To date, it seems that most of the PACE projects in this area have been concerned with bringing the school system closer to community cultural agencies, such as museums and theaters and orchestras. While this is desirable, there is a growing need for increased attention to the arts and humanities in the regular school program.

2. Demonstration and dissemination of new practices. There is an art to dissemination that is not well understood. It probably requires a combination of administrative support, in-service teacher training and the provision of new instructional materials.

Perhaps the State Department could employ one or more consultants on the dissemination of new practices who could work with local school systems. The State University might provide such a person as a service to school systems.

It should be clear that dissemination does not necessarily follow experimentation in a given school system. Often, a new practice which has been developed and tested elsewhere will be adopted by a school system—such as a non-graded primary school, team teaching, or foreign language in the elementary school. The adoption and implementation of this new practice in a system may require special help over a short period of time, help which can probably be paid for from PACE funds.

3. Supplementary Centers that serve a number of schools. The establishment of a supplementary educational center to serve a number of schools is an expensive operation which can seldom be completely paid for out of PACE funds. Yet this form of program may be very important as a means of promoting racial or economic integration of children, and as a means of bringing private schools into cooperation with public schools.

The supplementary center idea is so important that it might be given special consideration by a particular school system as a project for which funds would be collected from several sources. Certain federal funds might also be available, especially Title I funds under the Elementary and Secondary Education Act.

In a medium-sized city of from 50,000 to 100,000, a supplementary center could probably be installed in a partially used building, and then supported by a variety of sources, with the intention of making it a regular part of the budget as soon as possible.

4. Cooperative projects in rural and sparsely settled areas. A large number of small cities and rural counties lack the resources for such valuable educational services as a vocational high school, a library, a visual aid center and classes for handicapped children. There is now a general move toward informal cooperation among such communities, or toward an intermediate regional school district which would provide such services.

PACE funds could not fully support many such programs, but they might be used to start one or two as models. Here, the State Department of Education should provide stimulation and leadership. Some sort of Office of Educational Innovation might be maintained by the State Department of Education, perhaps in cooperation with the State University.

Cooperation Among States

If federal funds are to be used effectively for innovation, but continue to be distributed through the states, at least one-half of the states will have to improve substantially their State Departments of Education as agencies to stimulate innovation. One way to bring this about would be through cooperation between the various State Departments of Education.

The Compact of the States might create an Association for Educational Innovation, made up of State Departments in the less urbanized states. This Association might maintain a small staff of consultants, and might hold conferences on the different aspects of educational innovation.

PACE AS PROCESS

by Norman D. Kurland[*]

The focus of this paper will be on the impact of the PACE program upon educational planning and activity at state and local levels. It is designed to indicate some of the possible ways in which PACE as a whole has affected certain key educational processes, and to suggest hypotheses for an evaluation of the entire program.

PACE is Proposals

The most obvious new activity associated with Title III has been proposal writing. Never before have so many public school people worked so long and so hard on project applications. The 6720 proposals submitted by public schools in the first three years of Title III probably exceed by far the total number of proposals to private foundations prepared in the past by public schools. A whole new speciality of proposal design and writing has developed, and thousands of school people and others have gone through the exercise of preparing proposals. What effect has this had on them, and on American education generally? Has the process of proposal preparation itself had any positive effects, or is it of value only as a mechanism for distributing large amounts of federal funds? To substantiate the conclusion that the process has been valuable, evidence needs to be gathered to determine whether or not certain kinds of changes have occurred that can be reasonably attributed to the process. Among the changes which should be looked for in the behavior of educators are the following:

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[*] Director, Center on Innovation, New York State Education Department.

1. A greater understanding of what is meant by educational needs, and how to assess them, has been developed.

2. The ability to write precise educational objectives has been increased, along with the ability to detail specific procedures for achieving those objectives.

3. The ability to design evaluation procedures to test the achievement of the objectives has improved.

4. The technique of relating budgets to programs has been mastered.

5. People and agencies have learned to plan and work together to develop programs of mutual interest. This includes school districts working with each other, with non-public schools, with institutions of higher education, and with other cultural, educational and community agencies.

6. A significant number of rejected proposals have nevertheless resulted in undertaking the proposed activity because of the interest and commitment generated during the proposal preparation.

These are hypotheses which can be empirically tested, both by comparing PACE proposals of 1968 with those of 1966, and by studying the behavior of educators when dealing with other programs. Has there been a transfer of learning from the Title III program to other activities? Do American educators who have had the PACE experience now do more careful planning of other programs, particularly those supported by local funds? Do they pay more attention now to the assessment of need, the specification of objectives, the design of procedures, and to evaluation? Have they continued with other agencies, working relationships that were initiated by Title III?

The answers to these questions should be included in the overall evaluation of Title III. If Title III has produced a major change in the behavior of American educators, this could rank equally with the value of the projects themselves.

If, on the other hand, there has been little learning and little change of the kind described, and if the preparation of proposals has been a narrow technical task with little generalizability, then serious questions must be raised about the value of the proposal approach. For it must be remembered that this is a costly, time-consuming, and often frustrating process, as all those who have worked on proposals know.

While it is impossible to determine what it costs to develop and process a proposal, if one takes into account the time of all those involved, including school administrators, advisory councils, readers and reviewers at the State and Federal levels, an average of $10,000 a proposal would probably be a conservative estimate. This means that the 2639 proposals approved to date represent an investment of over $26 million. This cost must be added to the cost of the projects themselves to get a fair estimate of the total cost of Title III. Is it worth it?

Since we are not likely, for awhile, to abandon the proposal approach, no matter what the evaluation may show, a better question would be: Can we do more to ensure that the proposal process itself will have educational value? Now that the administration of Title III is being transferred to the states, they have an opportunity to examine the process and to devise procedures which will increase the probability that the objectives listed above as hypotheses will, in fact, be realized. Whether or not they are realized can then also be evaluated, thus making the Title III program itself exemplify the very process it is seeking to promote among the applicants.

PACE is Competition

A second feature of the PACE process is that it is competitive. There are no district allotments. Each district must compete with others for any Title III funds it gets, and competition is intense. Since the beginning of PACE over 6720 applications have been received, and only 39 percent of them have been funded. Applicants have known these odds, yet they continue to apply, facing the high risk of frustration as well as the high cost of proposal development.

Is this competition desirable, or would it be better to move toward the ESEA Title I model where each district has an allotment and only needs approval of the proposal in order to obtain it? A definitive answer should be given only after a more extensive evaluation of PACE. Some of the lines along which further investigations might proceed can be suggested.

One test would be to look at the answers to the questions posed in the first section of this paper. If significant learning takes place not only among the successful applicants, but among the unsuccessful as well, then, PACE may actually be a relatively inexpensive, if not entirely painless, form of in-service training.

This still leaves the question of whether or not the competition itself is beneficial. The test of the hypothesis that it is beneficial would be, in part, a comparison of the quality of proposals submitted in the early rounds with those submitted more recently. If proposals are improving (and people who have read them from the beginning have the impression that they are), then at least this shows that people have learned to write better proposals and are spurred to this effort by the competition.

A better test would be whether the projects implemented now are better than those started earlier. Have people learned not only how to write proposals, but how to design and implement programs? In addition, the study should include a comparison of earlier and later Title I proposals. If there are similar improvements, then competition may not be necessary.

A more significant test of the value of competition would be whether or not both professionals and laymen now tend to judge a school system partially in terms of the number and quality of the innovative programs it has. Clearly, this can be a superficial and even dangerous test if attention is paid only to the number of innovations, rather than to their character, quality, significance and endurance. The emphasis must be not on innovation for the sake of innovation, but on innovation for the sake of improvement. Competition in Title III can be judged beneficial if it can be shown that there is increasing awareness that a changing society requires change in education as well as increasing demand for quality and evidence of improved performance in the innovations which have been tried and adopted.

PACE is Evaluation

Of course, the critical issue is: can we tell which innovations really are improvements over traditional practice? It is to this issue that this third element of the PACE process is addressed—the emphasis on evaluation. This may be the area in which PACE and other ESEA programs have had the greatest impact on American educators.

In the past three years, educators have had to face a demand for accountability to an extent never known before. Evaluation requirements were written into ESEA by Congress, and each year at appropriation renewal time, Congressmen have asked what the evaluations show. No one can as yet be satisfied by the evidence that has been developed to date, but clearly, the ability of education to evaluate its programs is improving, and the formerly hostile attitudes of educators to evaluation are beginning to change. Evaluation is being accepted, and effort is being put into improving its effectiveness.

It will still be several years yet before we can say with confidence that evaluation has become an integral part of the process of education in this country. If it does become an integral part of the process, much of the credit can certainly be given to PACE.

PACE is Federal Phase-Out

A central feature of PACE has been its treatment as "seed money," to be used for developing promising ideas and for demonstrating those that prove effective. It has not been viewed as a source of sustained federal support for individual programs.

The "phase-out" requirement has forced school districts to do a number of things they had not previously done:

First, it has forced them to begin using evaluation data in making decisions. When a decision must be made on whether or not to continue an activity with local funds, it is hard to avoid using the available evaluation data. This converts evaluation from a ritualistic ornament to a practical decision tool.

Second, phase-out policy has made districts consider, at the time they initially apply for a grant, whether or not they are willing to commit themselves to continuation if the project is successful. It is easy to allow the federal government to support a project at no cost to the district. Few superintendents or Boards of Education would refuse to submit a proposal if someone on the staff were willing to write it. It is quite another matter if the district must make a commitment to continuation, should the project succeed. Then, more serious attention is paid to the importance of the problem to which the project is addressed, and to the question whether or not it meets a need on which the district wants to spend its money.

Third, the phase-out policy has made districts consider ways of financing activities on an ongoing basis. One of the vital matters for future study will be to determine how many projects are continued by the original grantee, how many are adopted by others as a result of the experience of grantees, and what the sources of funds are for both the continuations and adoptions. Do districts "find" new money to support new activities, or do they shift funds from less effective, or less significant, activities to the new?

The latter is by far the more significant kind of change to look for. It is relatively easy to add on activities, particularly when money can be "found" for them. It is much harder to substitute new practices for old. This requires change in priorities and change in behavior, both changes difficult to bring about. In the long run, however, if innovation is to produce significant improvement, it must be along the latter path, rather than the former. There will never be enough money or people to meet the expanding educational requirements of our society. The only hope is to replace less effective practice with more effective practice. That means creating the more effective practice, proving that it _is_ more effective, and convincing those who have the power of decision to change for the better. These are the three key elements of PACE.

PACE will be State Plans

A fifth aspect of PACE which may have a profound impact on American education is the recent requirement for the development of state plans. For the first time in many states, the state education agency is being required to look at the entire educational program of the State in a comprehensive way. It is being asked to assess the educational needs of the State, to place priorities on these needs, and to develop a long-range strategy for meeting these needs. It must develop procedures for assessing proposals; it must create evaluation and dissemination capabilities; and it must make judgments about the proposals submitted to it.

If states use well the opportunity created by the transfer of Title III to them, this could do as much, or more, to strengthen state departments than Title V. Analysis of the initial State Plans (submitted by July 1, 1968) can provide excellent base-line data against which future change can be measured. One of the major responsibilities of the USOE should be to assess the plans, and then to provide for an annual assessment, both of the up-dated plans and of the performance of the states in carrying out those plans.

If the states prove that they can achieve the PACE objectives, and if the realization of those objectives themselves proves to be worthwhile, this will provide Congress with a channel ready for the flow of federal funds into education, when funds in large quantity again become available.

This suggests a major reason for careful attention to the value of PACE as process. Federal money will, for long, be the smaller part of the support of education. Congress will certainly want to maximize the impact of its contribution. It will certainly be impressed if PACE projects prove to be exciting and effective. It will be even more impressed if it can be shown that the very process by which its funds are distributed has itself had a profound effect on the way the other 80 or 90 percent of the funds spent on education are used.

EVALUATION GUIDELINES AT THE STATE LEVEL

by Egon G. Guba[*]

Beginning with the current fiscal year, the major control and responsibility for the administration of ESEA Title III funds passed to the several states. Each state has prepared policy statements and guidelines for use in the state by persons and agencies contemplating the submission of Title III project proposals. Since the federal law requires that each project shall be evaluated, the states must necessarily include in their guidelines some statement relevant to evaluation.

An attempt will be made in this paper to suggest certain elements which, in the view of the author, are mandatory for inclusion in any such evaluation guidelines.[1] The paper itself should not be viewed as a guideline statement; it is not intended as a model of what such a statement should be. Undoubtedly there are many elements which individual state guideline writers will wish to consider for inclusion. It is the contention of this author, however, that a failure to include discussion of the elements treated here will be an oversight of devastating proportions to the public school personnel attempting to do a good job of designing an evaluation program. These elements are: (1) a definition of evaluation, (2) a statement of the criteria which will be applied by the state in determining the acceptability of an evaluation statement in a proposal, (3) a discussion of the relationship of evaluation procedures to research procedures, (4) a discussion of the aggregation problem, i. e., how the state intends to aggregate data from the several projects in order to formulate its own overall evaluation report, (5) some suggestions to the local projects on how to provide for staffing and budgeting, and (6) overall policies. Each of these areas will be very briefly treated below, mainly with the intention of exposing the nature of the problems, rather than of making suggestions as to how to cope with them.

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[*] Director, National Institute for the Study of Educational Change, Indiana University.

[1] Most of the ideas in this paper were prepared by the author for the document, Planning and Implementing Title III Evaluations, a statement by Robert L. Hammond, Daniel L. Stufflebeam, and Egon G. Guba under contract with the Division of State Agency Cooperation, USOE.

Definition

The term "evaluation" is used in so many different ways that a definition of the way in which the state may use this term is indispensible. Illustrating the variety of definitions in current use is a simple matter:

- The Dictionary of Mathematics defined evaluation as "the finding of a numerical value for some expression."
- The Dictionary of Education gives, as the first meaning of evaluation, "the process of ascertaining or judging the value or amount of something by careful appraisal."
- J. B. Carroll in his book, Learning and the Educational Process, defines evaluation as "a process of determining which objectives a given curriculum can attain, under what conditions, and for what kinds of pupils."
- The Encyclopedia of Educational Research indicates that the process of evaluating "involves three distinct aspects, consisting of 1) selecting the attributes that are important for judging the worth of the specimen to be evaluated, 2) developing and applying the procedures that will describe these attributes truly and accurately, and 3) synthesizing the evidence yielded by these procedures into a final judgment of worth."
- Michael Scriven in the monograph, The Methodology of Evaluation, indicates that the goal of evaluation is the "estimation of value," and describes two roles for evaluation: formative—evaluation of ongoing processes to improve them, and summative—the evaluation of outcomes.
- Cronbach, in his paper, "Evaluation for Course Improvement," suggests that "evaluation is the collection and use of information to make decisions about an educational program."
- Stufflebeam has variously suggested that evaluation is the process of providing information for use in decision making. He also identifies four classes of evaluation: context, input, process, and product.

This listing is sufficient to give the flavor of the many different kinds of definitions which are extant, and which may be called up in the mind of the reader when the term is used. Some of these definitions come close to equating evaluation with measurement. Some equate it with the process of determining cause-effect relationships. Some suggest that evaluation relates performance to objectives. Others suggest that value judgments are involved, thereby also implying the existence of criteria (values). Others relate evaluation to decision-making. Still others suggest that evaluation comes in a variety of types or classes, each presumably with special applications. Thus, if the state says, "Evaluate!" without giving some indication of what is meant by that injunction, many options are left to the local project designer as to what to do. And, since he is probably not aware himself of the many possible meanings that could be attached to the term, he will simply do what his definition suggests. If his design does not meet expectations, or if the individual designs of the several projects in the state do not yield data which can be aggregated in a meaningful way because they rely on different definitions, who is actually to blame in the absence of a clear definition in the guidelines?

Criteria

Evaluation is itself subject to evaluation. When a particular evaluation design is proposed, or when a particular evaluation is implemented, how can one tell whether or not it is a good evaluation? What criteria might the state reviewers apply to determine if they should approve an evaluation proposal? What criteria might the individual project staff apply to its own evaluation design or procedures to determine whether or not they are good?

Undoubtedly, many different criteria could be proposed, but the following seem to the author to be minimal. They are divided into two classes. The first class arises because evaluative information is subject to the same rules which govern the value of any information, i.e., scientific criteria. The first four criteria are of this sort. But because the information dealt with here is also evaluative information, it should, apparently, satisfy certain additional criteria of relevance to the evaluative situation. The last six of the criteria listed below are of this sort.

A. Scientific criteria

Evaluative information must meet the usual criteria posed for any scientific data:

1. Internal validity. Information is a symbolic way of representing phenomena. This representation must have fidelity, that is, there must be a good, if not a one-to-one, correspondence between the symbols and the phenomena. Or, to put the case in more basic terms, the information must be true. The status or relationships depicted must hold, at least for the sample being described, if the information is to have internal validity.

2. External validity. Information is rarely confined to the particular sample from which it was extracted. In general, interest

goes beyond that sample to a larger group, often called a population, to which the internally valid findings may be generalized. In these cases, the information must also have external validity, that is, it must be generalizable to the population to which one wishes to generalize.

3. Reliability. Information which is not reproducible has little value since we may assume that it is generated under random circumstances, rather than being determined by particular causes. We are most familiar with this criterion in relation to tests; if the test on readministration does not yield scores at least similar to those from a first administration, can the scores be relied upon? The criterion is thus one of replicability of findings.

4. Objectivity. This criterion refers to the publicness of the generated information. If the findings are capable of a wide variety of interpretation, they are useless, for then they mean whatever one wants them to mean. Certain data, e.g., testimony, may be quite replicable but might not be agreed to at all by an independent observer. Unless all persons competent to make a judgment agree on the judgment, the question of objectivity is at issue.

B. Extra-scientific criteria

The fact that evaluative information *is* evaluative allows us to posit certain additional, non-scientific criteria. But, their non-scientific nature ought not to blind us to their crucial importance.

If they are not met, evaluative information will not be used, resulting both in a waste of the resources used to get it, as well as to predispose the potential user against evaluative information in the future. These non-scientific criteria are:

1. Relevance. Evaluative information must be relevant to the situation it was intended to illuminate. Just what constitutes relevance is, in part, a function of the definition of evaluation used. If evaluation is seen as the finding of a numerical value, the information must be relevant to the expression whose value is sought. If evaluation is seen as relating performance to objectives, the information must be relevant to that performance and those objectives. If evaluation is seen as a process to aid in decision-making, evaluative information must be relevant to the decisions concerned. In any case, irrelevant information is useless and wasteful.

2. Significance. A great deal of evaluative information can be gathered in any instance, but an overabundance of information may confuse more than it helps. An evaluation design must therefore provide ways for culling out information of less value, highlighting that of greater value. Indeed, it is the exercise of his judgment about what is and what is not significant (not in the statistical sense), that gives the evaluator one of his chief claims to playing a professional role.

3. Scope. Information may be relevant and significant but not have sufficient scope to be of real use. If there are four

alternatives involved in a decision, or four objectives to which performance is to be matched, or four measurements to be taken, information relating to only one, two, or three of these is lacking in scope.

4. Credibility. Even the most scientifically substantiated evaluative information is of no use if it is not believed. The persons to whom evaluators report their findings, and who must act on the basis of those reports, are not likely to risk their judgment on the advice or findings of someone they do not trust. Self-reports, hearsay evidence, casual observation or user-testimonies are not likely to stir up a great deal of confidence. These data simply lack credibility; they are, in every sense of the word, incredible.

5. Timeliness. The best information is of no use if it comes at the wrong time, or too late. Congress, in debating whether or not to extend Title III for another year, needs to know "how we're doing" when they make that decision, not three months later. The project director needs to know that something is going wrong while the project is still under way and while it can be corrected—not at the end of the project. The teacher who wishes to adapt her methods to individual differences must have data about those differences when she is planning her methods, not after she has implemented them. Timeliness is probably the most frequently violated non-scientific criterion; "too little, too late" is the frequent lament of the evaluator.

6. Pervasiveness. Evaluative information is crucial to a

variety of audiences: teachers, administrators, project managers, parents, state department officials, the Congress, and the like. If the evaluation design does not provide channels for getting the findings to the revelant audience, it lacks in pervasiveness and will have an inadequate impact.

Relation to Research

A serious problem arises from equating the methodology of evaluation with the methodology of research. The definitive, controlled experiment is taken as the paradigm for the design of evaluations. This mal-equating has resulted in a great many difficulties which have been described in some detail elsewhere by the author and by others,[2] and which will only be summarized here:

1. Laboratory antisepsis. The control of context required by the experimental model (the "laboratory") allows boring in on specific variables whose influence is to be identified, but simultaneously rules out the "invited interference" which is desirable in determining how anything will operate in the "real world."

2. Intervention. Experimentation requires experimental arrangements, i.e., intervention on the part of the experimenter.

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[2] See, for example, Egon G. Guba, "Methodological Strategies for Educational Change," School of Education, The Ohio State University, 1965 (Mimeo.); and Daniel L. Stufflebeam, "Evaluation as Enlightenment for Decision-Making," the ASCD Commission for Assessment of Educational Outcomes, Sarasota, Florida, 1968.

This contrived situation can result in findings sharply different from those encountered in a real situation.

3. *Terminal availability*. The general format of the experiment provides data only at the *end* of the experiment. The timing of the information is thus often inappropriate.

4. *Restriction to single studies*. It is axiomatic that subjects can be exposed to only one experiment at a time, lest the "variances are confounded." But the number of new treatments, all demanding evaluation, that, say, a disadvantaged inner-city child might properly be exposed to, are multiple.

5. *The "sea of homogeneity*." The careful controls demanded by the experimental paradigm often cannot be met in education because of the inability to sample or to assign at random. The comparability required is usually sought by an alternative method—matching or pairing on the variables thought to influence the results. Thus the experimenter will seek two classrooms in schools of equal size, serving culturally similar communities, with similar numbers of boys and girls of equal intelligence, and so forth. Having produced such a "sea of homogeneity" by virtue of the need to approximate comparability, how can the experimenter expect that any single variation (e.g., two teaching methods) which he will impose can produce a difference? Even it if does, for whom is that finding generalizable?

6. Inapplicable assumptions. Classical data analytic techniques are based on certain assumptions, such as random sampling, normality of distribution, and so forth, which are not typically met in the educational situation. While statistics are known (empirically) to be "robust" in regard to these assumptions (i. e., not influenced "too much"), it is questionable whether or not one can have confidence in data derived from situations in which the assumptions are only rarely, or imperfectly, met.

7. Restricted decision rules. The decision rules applicable in the usual experimental case are those of statistics which permit judgments as to the "significance" of a finding. These decision rules are too limited for most educational situations, in which judgments other than simple "go-no go" decisions are usually required.

8. Impossibility of continuous refinement. The chief difficulty with the experimental paradigm is that it offers no possibility of change during the term of the experiment, yet most educational evaluations are aimed at dynamic situations. We want data as quickly as possible, not only to let us know how we are doing, but also to tell us what might be done to make things better. "Adjustments" in experiments are just not possible, however, for if one changes the treatment, how can one know what the findings mean?

This brief summary sufficies to illustrate the point that the methodology of research is undoubtedly a poor paradigm on which to base the design of evaluations. It would be useful indeed were the several states to recognize this problem explicitly in their guidelines. A statement which makes it clear that evaluations will not be judged on the basis of their similarity to conventional experimental design is imperative. Local evaluators should be instructed to desist from further, indiscriminate use of these conventional approaches and instructed, instead, to seek means for providing the information which they need and want.[3]

Aggregation

Evaluation takes place at a variety of levels: those of the individual student, the classroom, the school, the district, the state agency and the U. S. Office of Education, to mention only the most obvious. Evaluative information collected at one level may or may not be appropriate to needs at other levels. If local evaluation data are to serve useful purposes at these other levels, this fact must be made clear in any set of guidelines, so that the local evaluations may be appropriately designed.

The aggregation problem has a number of facets. First, even if aggregation is conceived of simply as the summing up of data collected at lower levels, it is clear that this summing up cannot occur unless similar data have been collected in a common format. At a minimum, then, the state guidelines must specify the variables about which it wishes information from the local project, about the format in which those data should be reported, and about the scheduling of reports.

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[3] I am reminded in this context of Abraham Kaplan's "Law of the Instrument": Give a small boy a hammer, and he will find everything he encounters needs pounding.

A second facet is that the higher echelon organization may require data which would not normally be collected by lower level units. To ask, for example, how effective Title III is as a state program, is vastly different from asking how effective is a particular local project. Data generated by local projects are not likely to be responsive to this question unless local projects are specifically instructed as to what relevant data to collect and how to collect them.

A third facet is that evaluative criteria appropriate at one level are inappropriate at another. We hear a great deal, for example, about reducing all evaluations to the level of information about how children achieve in schools; this suggestion is rationalized by saying that the education of children is the ultimate objective of schools, hence all programs have to demonstrate a contribution to that education. Thus, we find ourselves seeking achievement data to justify the effectiveness of Title III as a national program. This nonsense seems reasonable in education, but would be rejected at once in most other fields; thus, no one would suggest that the effectiveness of a nose cone on a spacecraft is judged by noting changes in astronaut behavior, nor would anyone say that the design characteristics of a carburetor should be tested by noting changes in driver behavior. Thus, evaluative criteria appropriate to the classroom or pupil unit probably are not appropriate to higher level units. Local project personnel responsible for evaluation need to be apprised of the criteria that will be used at the higher levels to which they report.

Staffing and Budgeting

The state guidelines should contain explicit information on the staffing and budgeting problem. An examination by the author of Title III proposals indicates that in almost no cases are adequate provisions made for funding the evaluation proposed, or for providing the manpower necessary to carry it out. This cavalier approach may be the result of the fact that local project directors do not take evaluation requirements too seriously, but it more likely reflects the fact that they are simply ignorant of what is involved. Good evaluation requires more than the provision of one half-time person and a little money for the purchase of standardized tests.

It seems unlikely that local projects will, in general, be of sufficient size to warrant the provision in every such budget of all of the specialized personnel and facilities necessary to carry out a systematic evaluation. Hence, the state may wish to set up, on a regional basis in the state, teams of evaluators, who will work with local school projects on their individual evaluation problems. The facilities and personnel found in such an agency as the Title III financed Project EPIC (Tucson, Arizona) may be taken as typical of what is required. These teams, or the agencies in which they are headquartered, may also wish to carry on additional functions, such as the systematic collection and processing of base-line data for all the schools they serve.

The state agency may also wish to set up an agency or mechanism charged with the mssion of recruiting personnel to become evaluators, developing materials for their training, and actually training them. It is a well known fact that evaluators are almost unavailable on today's personnel market. The usual sources of trained personnel, the universities, seem to be unresponsive to this need. Most Title III projects find it necessary to move a teacher or administrator into the evaluation post provided for in the budget because of their inability to find a trained person. These untrained evaluators are the special prey of unscrupulous consultants or firms who compound their ignorance with their own bad advice. Note that what is suggested here is not the imposition of certification requirements, but the provision of genuine assistance to local schools in finding trained evaluators.

Overall Policies

The management of evaluation, like all management, requires reference to a set of policies. These policies should be spelled out, insofar as possible, in the state guidelines. While any number of issues could be addressed, it seems imperative that at least the following matters be considered:

1. The necessity for "outside" evaluation. If the state finds the evaluation data provided by the individual project evaluation teams noncredible, unless verified by an "evaluation auditor," as it were, specific provision for such outside evaluation should be included. If outside evaluation is required, the local project should be given assistance in identifying a suitable outside evaluation agency to serve this function.

2. The audiences for evaluation reports. The local project evaluator needs to know who will be privy to the data he collects. Are the data to be completely public, releasable, say, to the local press in full form? Should different kinds of reports be prepared for the different audiences who may have a right to the evaluation data?

3. Feedback. The local project will be asked to provide data about itself in a common format with other projects. Moreover, it will be asked to provide special data required by higher echelons for their purposes. What feedback will the project obtain in turn? Will its own position be identified in relation to the broader data aggregated by the state agency? Will the data be fed back in ways that will not only permit the local project to assess its relative status, but also to refine its procedures?

4. Review. Who will have the authority and responsibility to review the project data. What decisions will be made that might be influenced by the evaluation, e. g., to terminate the project?

Finale

The reader is reminded that the purpose of this paper was not to provide definitive answers to the question of what should be included in state Title III evaluation guidelines, but to provide suggestions about certain problem areas that ought to be considered in drafting such a document. The task of developing a viable and functional set of guidelines is a formidable one, particularly if, as this paper implies, so many issues are still open to debate, and so few of the vital resources—people, instruments, concepts, designs—are actually available. But, an honest recognition of these problems, even in the absence of viable solutions, is certainly better than a continued attempt to gloss them over, or worse, to pretend that solutions for such problems are known, if only by the "experts." The field of education can no longer afford such glib, cavalier and dishonest responses. The anxieties of many practicing evaluators will be considerably reduced, and the doors to further development opened wider, by a straightforward statement from the states to the effect that new approaches are needed, and by a genuine effort on the part of the state agency to provide some of the missing elements itself.

INSTITUTIONALIZATION OF EVALUATION

by James D. Finn[*]

We live in an age of analysis. We also tend to synthesize and systematize everything we analyze in order to solve problems. These processes of analysis, synthesis and systemization are some of the power tools of our high-order scientific-technological society, aided, of course, by such things as computers and punched cards which supply data about our bill-paying habits, our blood types and our penchants for blonds, brunettes or redheads.

At the moment, the concern of the study group to which this paper is addressed is evaluation; not mere or abstract evaluation, but evaluation of the successes, failures, feasibilities and non- (or un-) feasibilities of various Title III innovative projects set up in school systems throughout the United States. Funds for this effort are supplied by the United States Congress and the projects are administered by the U. S. Office of Education, monitored by the several State Departments of Education, and worried about by local school administrators.

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[*] Chairman, Department of Instructional Technology, and professor of education, University of Southern California.

This chapter, because of its unusual nature, is carried over from Report No. 1.

This interest in evaluation, in my opinion, must be seen in a technical-social-political context within the entire educational enterprise. The age of analysis in which we live is generating an age of assessment in education. Thus, we have a campaign developing for a national assessment program (how well are the schools doing?); several states are also asking and answering the same question within their borders.[1] Other considerations (and pressures) aside, it would be no surprise, therefore, to see this evaluation zeitgeist penetrating the Title III program. How well are all of these Title III projects doing?

Further, as technological patterns of thinking and processing invade the previously primitive (from a technological point of view) educational culture, it is inevitable that a drive for systemization should begin. For example, Hammond opens his paper on evaluation with the statement, "The need for a systematic approach to the evaluation of innovations has become one of education's most pressing problems."[2] Analysis of a sophisticated variety must precede systemization, and such analyses can be found not only in Hammond but in Clark and Guba, Guba, and Stufflebeam,[3] to refer to some very recent examples. It should be noted that all of the work cited is exceptionally rigorous and highly sophisticated. It provides an excellent base from which to attack certain practical evaluation problems, not only for Title III projects but for any instructional process; this work is in the high technical tradition and, as such, is relatively new to professional education.[4]

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[1] There is the little matter of the very embarrassing performance of Los Angeles school children on reading tests, for instance.

Further, another sign of the analysis-synthesis-system approach to evaluation in education is the continual invention, development and refinement of instruments for use in evaluation processes.

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[2] Robert L. Hammond, Evaluation at the Local Level, Tucson, Arizona: Project EPIC (mimeo), undated, p. 1.

[3] David L. Clark and Egon G. Guba, An Examination of Potential Change Roles in Education, Bloomington, Indiana: The National Institute for the Study of Educational Change (mimeo), undated.

Egon G. Guba, The Basis for Educational Improvement, Bloomington, Indiana: The National Institute for the Study of Educational Change (mimeo), July, 1967.

Daniel L. Stufflebeam, The Use and Abuse of Evaluation in Title III, Columbus, Ohio: The Ohio State University Evaluation Center (mimeo), July, 1967.

[4] It may be a sign of age, but the writer can remember when the word "evaluation" was used as an excuse in parts of the educational community to avoid rigorous research; evaluation meant that anything went—and, in many places today, it still does. The new tradition will obviously change things for the better on this point.

Test-makers are everywhere, inventing measuring devices ranging from pencil and paper tests to simulators.[5] Guba suggests many new measuring and feedback instruments are needed.[6]

The general objective, then, seems to be in the direction of systemization of evaluation procedures. Sharp analyses, increasing and better instrumentation, process studies are all leading to Dr. Hammond's "systemtic approach" to evaluation in general, and, if this study committee is any indication, to a systematic approach to evaluation for Title III projects. Such a movement to system should lead to a great deal of improvement.

I would like to point out, however, that this movement toward system in evaluation also may not lead to improvement. For, in order for an evaluation system to be applied across the country, it is necessary first to institutionalize it; this is to say that, unless other means are invented, the evaluation system must be initiated, monitored and controlled by a bureaucratic system. Institutionalization of the evaluation process could destroy the innovative possibilities of Title III.

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[5] This phenomena can be seen among technologically oriented graduate students. One of my students completed a study on the evaluation of visual material by photographing and then measuring the eye pupil size of the evaluator and comparing it with his stated evaluation. Another is going to measure pulse pressure in much the same way. Both of these projects originated with the students themselves. It is no accident that Egon Guba (cited above) did some very complex studies of television using an eye-movement television film setup a few years ago.

[6] Guba, op. cit.

There is nothing inevitable in this potential destruction of the innovative process by the technical organization[7] for evaluation. However, if the evaluation processes as institutionalized are not to be made into a missile system aimed at the heart of educational innovation, additional analysis and invention is absolutely necessary. The remainder of this paper will examine this problem and, in addition, report some observations on the evaluation provisions of a number of Title III proposals which were studied in some detail; hopefully, the problem examination and the proposal examination can be tied together to develop some recommendations to close the paper.

Why Evaluation Anyway?

The basic question that needs to be asked to begin this analysis is: why is evaluation important in the educational enterprise? There are at least five purposes or reasons that can be presented in answer to this question. These reasons are: (1) to add to the substantive knowledge of educational processes, (2) to provide information in order to adjust, discard, or otherwise change the application of an ongoing education process, (3) to provide justification for a political-social-economic action relating to education, (4) to create a product (usually paper) which can move through educational bureaucratic systems and thus keep these systems operation, and (5) to provide instruments which may be used to carry information on the success of the process to the educational community. These five purposes do not necessarily operate in a discrete fashion; in other words, in any one situation several may appear in the form of a mix. It is fairly easy, however, to identify the emphasis in each case. The five purposes will be briefly discussed in the paragraphs that follow.

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[7] I should make explicit that I believe the evaluation process discussed above is a sub-technology within the broader concept of instructional technology.

The distinction between the first and second has been noted by many of the recent analysts, such as Stufflebeam and Guba. The first, measurements conducted under carefully controlled conditions, theoretically provides materials for the corpus of educational research; as such, the results should add to the substantive understanding of educational processes. And, as has been pointed out many times, such results are rarely directly applicable to the problems of the practitioner and are of little use to decision-makers. It is possible, however, for such product oriented research to come into existence as a fall-out or byproduct of a much more comprehensive evaluation procedure. The use of such research techniques as the only means of approaching evaluation has been amply criticized in recent years.

The second purpose for evaluation is now thought to be the most important when examining ongoing innovative projects in education, such as those set up under Title III. Here the decision-maker gets information on a feedback system which tells him how well the process is going, what changes need to be made, etc. Various models of this evaluation procedure have been proposed (see footnote 3).

This feedback evaluation system (if it may be called that), designed to aid decision-makers dealing with practical educational problems, such as the operation of a Title III innovative center, has not yet been criticized to any extent due to its novelty for the field of education and the careful construction of the emerging theoretical models.

However, the feedback evaluation system is open to criticism. It assumes, at the outset, that the decision-making process in a given school, school system or other educational entity is rational. It is not. The folklore of education is filled with examples of the school business manager selecting curricular materials, the high school dean of women throwing Salinger out of the library, and others too numerous to mention. Prior questions have to be asked whenever the feedback evaluation system is proposed. Who or what group is the decision-maker? How does the power structure really work? What are the motivations? Unless these questions are answered and the rationality or irrationality of the particular system is analyzed, the beautiful, precise and rational models of the feedback evaluation system will not work—or, at the very least, work very imperfectly.

The third purpose for evaluation is the purpose of justification. In this case, a board of education, a state legislature, a committee of Congress or numerous other bodies both public and private need information in order to take some action respecting education. This action may be in appropriating funds, hiring additional remedial reading teachers, purchasing a language laboratory, etc. Or, in the opposite case, it may be to fire the superintendent, set the building program back two years or reduce the audio-visual appropriation by forty percent. These actions are justified by evaluation, whether formal or informal. In the case of the disposal of school personnel, the evaluation before action may be choleric and personal; increasingly, however, as statistics become everyday playthings of the mass media, justifications for political-economic-social educational action are couched in scientific garb, whether really scientific or not. We are all familiar with arguments which press in opposite directions for action by some public body based on the same evaluative report.

While it is obvious that public bodies with the appropriate authority over education have every right to evaluative information and, in fact, often need more than they get, it is equally true that the development of justification ought to be a secondary objective of educational evaluations carried out by professionals. This, of course, is a value judgment. It can be argued, for example, that the effort expended in developing a particular kind of justification evaluation in order to save a program known to be good is more important in the real world of politics than more technically adequate professional evaluation. The answer to this problem, it seems to me, is to pay attention to the two elements in the old cliche about the tail and the dog. An evaluation program set up only for justification purposes is unprofessional; a professional evaluation procedure on a program that is demonstrably good ought to develop sufficient data to justify its continuance or expansion.

The fourth purpose for evaluation recognizes the reality of the new industrial state—the corporate society. Such a state produces hierarchical bureaucracies (this phrase is, I suppose, redundant) in industry, government, labor unions and volunteer organizations as well as universities. Evaluative reports are, of course, necessary for the proper functioning of the enterprises which are the concern of these bureaucracies, particularly for the use of the technostructure, as Galbraith has called the decision-making groups in large industries.

The reader is reminded, however, that bureaucracies lead a life of their own that is somehow magically related to the flow of paper in and out of little wooded or wire baskets and conferences in conference rooms concerning the leapfrogging of this paper among the baskets. Paper, then, must be generated so that the system may lead its organic, inward life. Evaluation studies may be a large part of this pulsing circulatory system—the corpuscles, so to speak. It is emphasized that the relation of this particular form of corpuscular paper with the real, operational world may be nil or almost nil. In many cases that is not its purpose of existence.

It then follows that a careful distinction must be made between required evaluation which is necessary and has an effect on operations and decisions and that which only serves the life function of the bureaucracy itself. The first needs improvement; the second needs to disappear.

Finally, the evaluation process is undertaken to provide data on new developments in order that these data may be diffused throughout the educational community so that schools in distant places may understand and take advantage of the findings. This idea is a little tricky, as it could be held that the evaluation comes first and diffusion follows as a matter of course. In many cases this is, in fact, what happens. However, there are other cases in which the distinctions between evaluation process and diffusion instrument are not so clear. The generators of a good idea want to sell it. The evaluation can be the package. Obviously, such a package may not be the same as an evaluation package for researchers, decision-makers or bureaucrats.

These broad purposes for evaluation do not coincide very well, I fear, with the meticulously drawn detail in the charts of the experts. It may be that their only value is in delineating the perceptions of the responsible administrator on the firing line. Thus, for example, if a request for evaluation is seen as necessary for the functioning of bureaucratic life, it will be developed with that purpose in mind—a useful paper corpuscle designed for the bureaucratic arteries, not for real time operations.

It may be more important, however, to examine the drive toward systematic evaluation in the Title III program from the point of view of these five broad categories of evaluation purposes. Evaluation of Title III for what? For diffusion, for checking and adjusting ongoing processes, for substantive knowledge, for justification—perhaps of the entire Title III program itself—or for improving the circulation of a bureaucracy? I believe that the mix of these purposes must be carefully measured before an intelligent judgment can be made concerning any agreed-upon evaluation procedure.

The Problem of Institutionalization

Leaving the question of purpose open for the moment, we can turn to what I believe is the heart of the matter, namely, the question of institutionalizing the entire Title III evaluation process.

If this is so, then the arguments introduced in the introductory material could stand further examination. It was stated that systematic evaluation was considered desirable; that this was part of the general drive toward analysis, synthesis and systemization within the educational culture; and that such systemization had its bad aspects as well as its good aspects.

Although I have nowhere seen the concept verbalized in a precise manner, it seems clear that we are being asked to provide guidelines for the institutionalization of evaluation for Title III projects. The reasoning seems to go something like this: (1) present evaluation procedures are not good; they are spotty, at times sloppy and unscientific; many times they imitate the researcher's controlled experiment when they should be providing the decision-maker with feedback information to correct the system, and a credibility gap exists on the diffusion front; (2) "hard data" must be developed for public bodies at all levels concerned with the Title III program; (3) the rather bad evaluation procedures now in use are neither generating hard data nor helping in decision-making due to lack of knowledge, guidelines and skill among the operators of Title III projects; (4) by a thorough tightening up on the evaluation guidelines to be developed by experts, and by institutionalizing these guidelines with a system of information and controls, the evaluation procedure will be helped, public bodies will be made happy by the presence of hard data and better decisions will be made in directing ongoing projects. This is, indeed, an enticing picture, and to raise questions about its fundamental premises seems to be akin to questioning the institution of motherhood, Sigmund Freud to the contrary.

However, I would like to question the entire concept of institutionalization of the Title III evaluation process and insert into the record a few arguments that might at least suggest institutionalization in a different form. It is granted at the outset that, with over 1,200 Title III projects on which a considerable sum of money is being spent and with the great need to develop viable educational innovations which can be adopted by the educational community, improvement in evaluation procedures is a necessity. Further, operations on the scale of Title III require quality controls which are only made possible by large scale systematic evaluation procedures.

Granting all this, questions may still be raised and arguments considered. First, while the analyses of the experts—Guba, Stufflebeam, Stake, et. al.—of the evaluation process are impressive and potentially fruitful, is it possible that they have, in fact, over-analyzed the process and, in doing so, slipped into the same trap that the conventional educational research man does when he attempts to apply controlled research techniques to evaluation processes operating under field conditions? Are these analyses, rather, important additions to our substantive knowledge and should they, instead, be used to generate more study of the process so that field applications would eventually develop? Have, in fact, these analyses departed from operational reality, at least in the sense that the practitioner would not know what to do with them? And, if one or more of these models was frozen into enforced guidelines, would this not result only in bureaucratic paper? I am not sure as to the answers to these questions, but I feel that these possibilities deserve more consideration than they have been getting.

I have no question, however, on another point. The proposed models simply do not embrace all Title III projects. There is a tendency to forget that a portion of the Title III effort is designed to provide supplementary educational services to various geographic areas, and proposals have been submitted and projects funded for such service centers. Further, entire new educational program efforts ("A Six County Program in the Performing Arts") do not lend themselves too well at first to measures that are meaningful and always present difficult problems for evaluative information systems.

The service centers present the real challenge, however. There has been, I believe, a tendency on the part of the USOE to play down, if not ignore, the meaning and importance of the service center concept to units of the educational community. This is due, no doubt, to the decision which placed the emphasis on the innovative aspects of Title III rather than on the supplementary service center idea. It is still a fact, as noted above, that some of these centers have been approved and funded, and if there is to be systematic evaluation for Title III, these projects must be included.

In this connection, there are two problems. The first problem is somewhat technical. The difficulty lies in the fact that the sophisticated evaluation models do not exactly fit the problem of evaluating a service center—for example, a media center supplying media services to a group of school districts. These models, for all their claim to generality, tend to concentrate on innovation in the instructional process—curriculum, methodology, the mediation of instruction. It seems pretty obvious that when you set up a service center of some kind, the distance between the regional center and the student is highly attenuated from the point of view of evaluation—both as to time and distance. To expect the evaluation process as abstracted in these models to cut through from a regional center to a student in the fifth grade of George Washington school in one of six school districts, define the effect that the sudden acquisition of a film library had upon him in a year's time, and adjust the content or service of the library accordingly is also to expect that the films will be delivered to the school via flying saucers piloted by little green men.

I should hasten to add that the principles inherent in the models can be, in many cases, applied to the evaluation of service center operation. The problem is that, if the institutionalization of the evaluation process continues to proceed and harden along the lines it is apparently proceeding, harrassed administrators will be asked to evaluate a service center operation by standards that ought to be applied to the evaluation of a new approach to phonics in the teaching of reading. This simply would not make sense.

In addition, the media world is not without a certain sophistication in the evaluation of service center operations; and these procedures relate to the principles enunciated by Guba, as one model maker, but not to the tactics that seem to be implied. To cite a homely example, if film keeps coming back into the library from a given district all chewed up, the center director then has a practical measure readily at hand which requires further investigation immediately. He must find the answers to such questions as: How are the films projected? By students, teachers or both? If teachers, are they doing it properly or do they need some training? If the human factor is not the problem, what about maintenance of the equipment? If the provisions for maintenance and control are all right, what about the performance of the Acme Repair Company on the projector service contract? Etc. Etc. Once these questions are answered, then changes can be made. This procedure is in line with the principles of Guba, Stufflebeam, _et_. _al_., but not the suggested tactics that seem to flow from them. Problems such as this one will only become difficult if evaluation is institutionalized. Under such hardening of the categories,[*/] the evaluative universe is interpreted to be the instructional process and the responsible administrator is forced to proceed accordingly.

[*/] A phrase picked up from Edgar Dale many years ago.

The second problem defies the models. An examination of proposals for Title III centers (mainly media service centers), both funded and unfunded, shows immediately that the funds are very badly needed to supply materials, equipment and services that are sadly lacking in the districts to be served. NDEA funds, articles about media, and fears about commercial domination to the contrary, the plain fact is that many, many schools in this country do not have enough of anything to do the job required of them. Under Title III they get some money for equipment, materials and services. It is like giving a drink of water to a man who has spent three days on the desert without it. How are you going to evaluate that? By the test of survival? What is survival in the educational setting? What these few centers funded by Title III mean is that all of the schools involved are experiencing an increase in their technological base. I submit it is only after this base has been functioning to the point where it requires additional technology does evaluation become meaningful. In the beginning, anything is better than nothing. There are, of course, still evaluative questions, generally pointed toward improving operations and attaining efficiency. Other models, however, are needed for this.

In a sense, the broad educational programs mentioned above fall into the same category as the service center. In some of the proposals I examined, for example, broad programs in the performing and plastic arts and the humanities were proposed for regions which had absolutely nothing of this kind but the prints sold at Woolworth's, the local piano teacher and the county pioneer pageant at the fair each fall. In one rather large area, for example, there was no school except a religious high school where a student could get instruction in the playing of any stringed instrument. Again, the desert-water analogy holds. Some things are obvious. Music, art or the theater brought into a community make things better, period. It seems, in a way, ridiculous to measure or count such efforts; members of Congress should be happy with the invasion of the arts as a happening; experimenters or journalists might have to wait a few years for experimentation or diffusion. It is granted that the best possible operation is needed, but a narrow institutionalization of the evaluation process for Title III projects will not provide that better operation.

If the evaluation theory we are apparently following does not exactly fit the service center and large program projects, in incongruence must show somewhere. It does in reference to objectives, an important point to notice when thinking about evaluation. Almost every reference to objectives (the achievement of which are to be measured) refers to behavioral objectives or some variant thereof. In addition, performance tests, criterion tests, etc. are easily picked up bywords in discourse on evaluation. It is as if the jargon of programmed instruction has suddenly become the lingua franca of all educational evaluation—or, for that matter, of all education.

Now, some of my best friends are behavioral objectives, but I would not want my media service center to marry one. Seriously, objectives are one thing and behavioral objectives are another. Behavioral objectives are a microcosm, to be entered into when students are directly related to content, processes, media or people in the classroom. To apply them to large programs embracing all of the arts throughout a wide region, a library service center for a county school system, or a data processing installation represents a beautiful confusion of form with substance—setting up the conditions of operation for an educational Parkinson's Law. Even smaller sectors of the educational enterprise directly related to instruction may not need objectives stated in behavioral terms.

I wish to make it very clear that I am not attacking behavioral objectives as such. They can be made to accomplish spectacular things with certain instructional processes and are legitimate targets for evaluation. On the other hand, sometimes we will need _system_ objectives, which are not the same thing at all. By stretching a point, it might be said that an evaluator might want to measure (and change) _the behavior of a system_ (such as a library, full-scale curriculum operation or something else), but I do not believe that this type of objective was exactly what B.F. Skinner had in mind (or Ralph Tyler many years earlier).

There is, of course, nothing in the models with which we have been dealing that requires behavioral objectives; and it is also a truism that evaluators can't evaluate for any purpose without objectives. The fact remains that all the discourse about evaluation is conducted as if there were no other types of objectives in the educational universe, even when the discussants unconsciously know better. Thus the incongruence between the theory (or theories) of evaluation under analysis and the real time world of operation can be shown to be a possibility.

This exploratory discussion relating to some specific problems of institutionalizing Title III evaluative processes can now be brought into focus at the philosophical level. To review, there is apparently great concern as to the quality of existing evaluation, there is a desire to produce "hard data" for persuasive purposes, there is a need for accurate information as to progress and to adjust for improvement, and there is the necessity of diffusing information on successful practices—success being determined by competent evaluation. Further, the size of the Title III effort (over 1, 800 units) and its wide distribution geographically with enormous differences in the resources and abilities of the educational units involved, all press for standardization (at an acceptable level of competence) of evaluation procedures.

There is, however, a deeper drive involved in this effort—or, at least, I believe it to be so. The industrial state is the corporate, bureaucratic state. The imperatives of technology, we are reminded by many observers such as Galbraith, have replaced ideology in much of our culture. Technology requires large scale organization, orderly processes, group planning, and, where possible, it seems to me, a kind of neatness in the system that one might associate with a computer installation or a "clean room" in an electronics factory.

In a fundamental sense, the entire Title III effort at educational innovation is a move toward bringing the educational enterprise into the modern industrial state. Title III is educational technology. This may sound strange to those educators who define educational technology as a term synonymous with language laboratories, computers or television. I would remind them of Galbraith's definition of technology, although many similar definitions might be cited. Galbraith said, "Technology means the systematic application of scientific or other organized knowledge to practical tasks."[8/] He goes on to point out that the main characteristic of technology is the breaking down of tasks into detailed sub-divisions so that organized knowledge may be put to work, and that this analytical procedure "is not confined to, nor has it any special relevance to mechanical processes."[9/] I submit that the very selection of evaluation as a field to analyze in connection with the Title III program is evidence of this movement toward technology.

[8/] John Kenneth Galbraith, The New Industrial State, Boston: Houghton Mifflin Company, 1967, p. 12.

[9/] Ibid., p. 13.

In any of the units of a society of high technology, such as the United States, very extensive planning is necessary. Since the units are very large, for the most part (Galbraith's 500 "mature corporations," large government, etc.), the planning affects and controls millions. A systemization of the Title III evaluation process is a form of planning. This concept leads us to the crux of the argument. Galbraith has noted, for example, that "...planning involves, inevitably, the control of human behavior. The denial that we do any planning has helped to conceal the fact of such control even from those who are controlled."[10/] He was speaking of economic planning, but I believe this concept to be totally generalizable in our technological culture.

Planning involves the creation and management of systems; systems require, or at least imply, bureaucratic control. Hence, unless, as indicated in the earlier portion of this paper, additional means are invented to fit the peculiarities of the institution with which we are dealing—the American educational enterprise—the development of a systematic, technically competent evaluation process for Title III will result in bureaucratic control that I believe would mean the end of the dream that Title III would bring needed innovation to American education.

Such a prospect is difficult enough, but further complexities must be examined. Galbraith has pointed out that, with high technology

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[10/] Galbraith, *op. cit.*, p. 23.

and large organization, as in the mature industry, the planning and management processes are in the hands of fluid groups of experts, each bringing complex information into the group processes where decisions are made. The fluid groups he calls the technostructure. We come now to the rub. *American education, as a sector of the political economy, is very primitive from a technological point of view and has practically no technostructure.*

If the concept of a lack of a technostructure in American education is accepted, it is possible to explain many things.[11] Galbraith does this in another context when explaining why socialist countries have had "the most uniformly dismal experiment of countries seeking economic development."[12] Speaking of India and Ceylon, he goes on to say that, in these countries,

> ...if the minister is to be questioned, he must have knowledge. He cannot plead that he is uninformed without admitting to being a nonentity... Technical personnel are less experienced than in the older countries. Organization is less mature. These lead to error, and suggest to parliamentarians and civil servants the need for careful review of decisions by higher and presumably more competent authority. Poverty... calls for further review. And rigid personnel and civil service rules, the established British answer to primitive administrative capacity, extend into

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[11] Consider the inability of the old line-staff administrative patterns to handle aspects of the new educational technology (hardware and materials logistics, etc.); consider the problems of the ghetto from this point of view; etc.

[12] Galbraith, *op. cit.*, p. 101.

> the public firm and prevent the easy consitution and reconstitution of groups with information relevant to changing problems.[13]

It seems to me that it is easy enough to transfer this Galbraithian concept to the American educational system. To begin with, there is no large scale organization in the technological sense and, as noted, no technostructure. If development is to occur, it becomes obvious to those responsible—in our case, the USOE and our study committee—that review and control of decisions and operations relating to evaluation are absolutely necessary when dealing with such "primitive administrative capacity"—and it is primitive from this point of view.

At this point, however, it is necessary to exorcize a ghost. I am suggesting that national bureaucratic control or even systemization of evaluation seems to be necessary under the circumstances, but I am further suggesting that this may be unwise (the reasons for this will be discussed below). It then might follow that all I am interested in is a reduction in the size of the bureaucracy and the removal of the controls to the state level. Nothing could be further from the truth. Bureaucratic control from the state level will merely extend the "primitive administrative capacity" from the school district upward. I venture to say that no state department in the United States has an adequate technostructure or is about to get one—and this includes

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[13] Galbraith, op. cit., pp. 101-102.

New York and California, both of which have been praised in many quarters. I believe that institutionalizing Title III evaluation processes under state departments of education will concentrate many undesirable elements of such a system. My arguments against institutionalization in the form that seems to be implied by events must be seen in this light. Once the arguments are considered, it may be possible to suggest a better solution.

To return to the main theme, given the assumption of planning and systematic (translate bureaucratic) control of Title III evaluation procedures, certain undesirable effects seem to inevitably flow from many (but not all) such developments. High technical solutions to some problems require exactly such arrangements—getting to the moon, stamping out an epidemic, etc. In such situations large scale technology and its peculiar requirements seem to fit fairly well and the people involved are relatively comfortable. However, all large scale applications of technology (systematic organization) do not fit—particularly where they impinge in certain ways on human beings (recall Galbraith's sentence on control).

This lack of human fit of many of the technological developments in the United States—depersonalization of university life, smog and the automobile, social decisions made by the corporate structure over which those being decided about have no control—has given rise, in the last decade, to a heated dialogue which has erupted on numerous occasions into violence.

It is a mistake, however—a serious mistake—to view the dialogue only from the point of view of the violence or certain individual issues such as Viet Nam, civil rights or rent strikes. For anyone who cares to take the time to inquire, a much deeper dialogue, a much deeper emerging philosophical statement are there to hear. "To hear" is used advisedly, for I believe unless we listen to what some of these bright young people are saying, to what the New Left is trying to expound, to what some artists are expressing, we, as educators, may fail this country and all of the young people in it.

What is this dialogue? It is a dialogue between high-order technological organization, the industrial state, impersonal controls over people and spokesmen, no matter to the degree that they are right or wrong, for men as human beings—for man in microcosm. An educator, it seems to me, does not necessarily have to adopt totally the view of one side or the other. Some educators, at least, ought to see the thousand dilemmas present in this confrontation and seek solutions which are, first, educative, and secondly, human without reducing our culture back to some primitive stage where we live in the hills in shacks. I believe we should seek in general what William Javanovich saw in the future when he predicted "the emergence of a new kind of intellectualism which will reconcile content with style, social purpose with personal sensibility."[14]

Assuming that I am right in understanding that the effort to "improve" the evaluation processes associated with Title III will move in the direction of national systemization and control (or, worse, state systemization and control), the criticisms of these spokesmen for the defense of man as man have relevance. They should be seriously thought about, for, within the intimate environment in which each man lives, they attack systemization and control with a vengeance.

Let us begin with one of the best known spokesmen for this point of view, Paul Goodman. Recently he was asked to address the National Security Industrial Association and took the opportunity to berate this industrial-military technology group. At one point he said:

> Your thinking is never to simplify and retrench, but always to devise new equipment to alleviate the mess that you have helped to make with your previous equipment.

And, then he went on:

> Your systems analyses of social problems always tend toward standardization, centralization, and bureaucratic control, *although these are not necessary in the method*. (italics mine)

Finally, he stated a principle or theme that reappears time and time again in this literature:

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[14] William Javanovich, "My Illusions and Yours," *Harpers*, Volume 235, Number 1409, (October, 1967), p. 59.

> In a society that is cluttered, overcentralized, and overadministered, we should aim at simplification, decentralization, and decontrol.[15]

A great deal of this new literature is being created by young people. A whole issue of the American Scholar was recently devoted to writing by people under thirty. In it, Michael Rossman made an effort to explain the deep philosophical base of the so-called National Student Movement. In doing this, he expressed much about their concern with man as individual man and even explained (and this is a little hard for an older person to understand) "participatory democracy" both as philosophy and as tactic. Three concepts appear in much of this literature, and they appear in Rossman. They are: Engagement, Encounter, and Involvement. The concern is with humans relating to humans—with true encounter. Rossman puts it this way:

> ...the present Old Left among us...aims at the mass; at the racial, economic or occupational population. But the unit in terms of which the Movement conceives change tends to be the small group.
>
> ...The way to influence large groups is by local example, rather than global persuasion.
>
> ...direct personal involvement is the Movement's human backbone.
>
> ...In saying that people must be involved in the decisions that shape their lives, the emphasis is on involved.

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[15] Paul Goodman, "A Causerie at the Military-Industrial," New York Review of Books, Volume 9, Number 9, (November 23, 1967), pp. 16-17.

> ...political dialogue must be cast in a different vocabulary than that possible with the comfortable separation of the Changer and the Changed.[16, 17]

Harper's recently published a symposium consisting of a series of dialogues between well-known older commentators on the national scene and a panel of young people similar to those appearing in the American Scholar. In this case, it was, at times, hard to distinguish between the older and younger viewpoints. Again, the theme reappeared time and again. The issue was impersonalism, bureaucratic control *versus* general encounter and the human condition. It is tempting to go on quoting a great deal because the material seems so relevant, but I shall try to restrain myself. Paul Potter, one of the "older" members of the panel, said:

> ...there is a growing belief that the only force really shaping the future is the force of unleashed technology controlled by giant, impersonal bureaucracies.
> ...economic planners cluck truculently about the "great leveling force of technological development" that will in time assimilate all revolutions and all cultural diversities into one grand machine civilization.[18]

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[16] Michael Rossman, "The Movement and Educational Reform," *The American Scholar*, Volume 36, Number 4, (Autumn, 1967), pp. 595-596.

[17] It should be noted that, for the professional educator, Rossman has some provocative things to say about teaching and learning in higher institutions and proposes some interesting reforms.

[18] Paul Potter, "The Future is Not Inevitable," *Harper's*, Volume 235, Number 1409, (October, 1967), p. 48.

In commenting on Potter's article, young Robert Gross said:

> ...we have to end the domination of this society by the large, rigid bureaucracies which pay little attention to the needs of the people they are intended to serve.[19]

And Alfred Kazin commented:

> ...the more immediate and abundant our technical power, the more we lose the naive, spontaneous imagination.[20]

Other parts of the text refer to "students who are demanding flexibility and personal relevance," "non-rational ways of getting at knowledge," "taking strength from the free private life." There is also, however, another thread which suggests that something better might be made of this "technocratic totalitarianism," as Potter called it, and he went on to say:

> The technology and the bureaucracy can be mastered and put to work to create for everyone what we've begun to have a taste of...[21]

A Suggested Accommodation

The argument has come full circle, and the potentials of accommodation are there if they can be identified. It seems to me important to suggest a new approach to the problem of institutionalizing evaluation for Title III projects which would accommodate need for and technique of consistent, high-quality evaluation procedures with human, local needs and differences in projects and concepts. Personally, I feel that many of the critics of technical bureaucratic control cited above offer little replacement for this control with a sort of leaderless "participatory democracy" which, in a technical sense, will not even achieve their own objectives. And yet, much of what they have to say is important.

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[19] Robert A. Gross, "To Mr. Potter," Harper's, Volume 235, Number 1409, (October, 1967), p. 50.

[20] Alfred Kazin, "Art on Trial," Harper's, Volume 235, Number 1409, (October, 1967), p. 51.

[21] Potter, *op. cit.*, p. 50.

We have been concerned with models of high-quality evaluation procedures; with purposes of evaluation; with implied arrangements to insert controls in the system so that legitimate purposes may invariably be supported with technical competence. All of the elements of a bureaucratic system are there—whether in the eventual rough and tumble of administrative or legislative politics this control is placed at the federal or state level. Of course, such control could apparently be non-enforced by guidelines or some other system which in fact would quickly encrust into a strait-jacket. On the other hand, controls are needed so that competent, useful evaluation may take place. This, to repeat, is the problem of accommodation.

And I hold that it is a solvable problem and that the possible solution, as Boyd Bode used to be fond of saying, "lies at hand." Many of the elements are present in Project EPIC of Tucson, Arizona.[22] Project EPIC is, essentially, a sort of local evaluation service center funded by Title III funds and assisting local school agencies within the area it services.

Given this idea as a start, it is possible to make a series of recommendations that can, I believe, achieve the sought after accommodation between the need for evaluation and the human variation which inevitably occurs at the end of the line. Such an accommodation will not be as neat as a clean room in an electronics factory; on the other hand, it will not be so messy as to be useless; in fact, it might have enough variation in it to release creative energy—which was the general idea of Title III in the first place.

Recommendations

1. *Title III funds be used to set up a series of regional evaluation centers throughout the United States designed to provide training and assistance to local educational agencies.*

2. *The function of these centers be to provide advice, training and services and, particularly, to diffuse the general idea of the importance, usefulness and nature of a high-quality evaluation system.*

3. *It be understood that the evaluation centers are only persuasive and helpful in nature and that, if an educational agency chooses*

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[22] See Hammond, *op. cit.*

not to respond, it be allowed to without penalty—actual or implied.

4. These centers also engage in a certain amount of applied and field research with the purpose of developing viable and variable evaluation procedures which can embrace all types of evaluation needs and purposes.

5. A back-up national board be set up to assist the centers and the USOE and Congress. This board would have the following functions:

a. Locate and rotate manpower between the centers. Much of this manpower could be one-year leave-of-absense type; other slots could be filled with qualified graduate students on an intern basis.

b. Act as the assembling agency for results which ought to be diffused and as the communication agency between the centers. As such it should act as both the stimulus and the conscience for the centers.

c. Engage in broad scope research and development studies in the field of evaluation.

d. Provide an information source for all government agencies, local, state, federal.

e. Relate to and diffuse information to the educational community about other national, private evaluative efforts, such as the National Assessment Program, etc.

Under no circumstances should this board be thought of as a control mechanism in the bureaucratic sense.

If these recommendations are analyzed for the purpose for which they were made—to create a system which would achieve the objectives of necessary high-quality evaluation procedures for local, human purposes without inserting another bureaucracy into the system, details of operation and administration should become reasonably clear. The human being at the end of the line—administrator, teacher or media specialist—can have his opportunity for involvement and encounter. And it is highly likely that we can raise the quality of evaluation immensely.

PACE EVALUATION

by Robert E. Stake[*/]

Public Law 89-10 Title III has had a sweeping effect upon what U. S. schools are doing for children. New opportunities for learning run into the thousands. The number of children who have benefitted—those who are wiser, or happier, or more enthused about learning—runs into the many thousands. According to the wording of the legislation, Title III establishes a program

> "to stimulate and assist in the provision of vitally needed educational services not available in sufficient quantity, and to stimulate and assist in the development and establishment of exemplary elementary and secondary school educational programs to serve as models for regular school programs."

This has happened. Title III has enhanced and increased educational opportunity for many children.

Title III of the Elementary and Secondary Education Act of 1965 enables local schools to use federal moneys to increase instructional

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[*/] Associate Director, Center for Instructional Research and Curriculum Evaluation, University of Illinois.

services. Either through regional (e.g., multi-county) supplementary centers or through projects within the local school system, the school could use materials or techniques not otherwise available to it. Funding was expected to be transferred from federal to local sources, usually after three years.

As of February, 1968, the U. S. Office of Education had approved 2,265 projects in the 50 states and territories of the United States. About 45 percent of these were planning projects, most of which were (or will be) followed by separate operational projects. The funding as of that date had exceeded $200 million.

Evaluation

There are three ways to look at the responsibility for evaluating a large social endeavor like Title III: (1) describe what it is doing and how well people like what it is doing, (2) contrast what it is doing with what it could be doing under another plan, and (3) study its components to learn how better programs might be assembled in the future. Little of the data gathered for one purpose would be likely to be of much value for the other two.

Most of the attention which has been given to the evaluation of Title III by the U. S. Office of Education, by project personnel, and by interested bystanders is pertinent to the first part of the first point above. The emphasis on evaluation in project proposals and contracts concerns the effects that project personnel can report. The more interesting and useful aspects of evaluation having to do with value-judgments and decision-making are given little attention. Evaluating Title III as a whole-greater-than-the sum-of-its-projects is at best a fleeting wish.

As a member of the Committee of Special Consultants (chaired by Richard I. Miller of the University of Kentucky), I have been asked to discuss what is being done, and what could be done, to evaluate Title III. I have chosen to include a number of value-judgments of my own regarding the quality of Title III activities. The next few paragraphs will display those opinions; the remainder of the paper will consider the evaluation responsibility in general.

U. S. Education—as an enterprise—has not been reshaped by this federal legislation. More good things have been done—many new things have been done—but education as a social enterprise is not discernibly different in a Title III school from education in a non-Title III school. Some citizens cry out for revolutionary change. Title III purports to be the instrument of innovation, but it seeks to do nothing about changing the purposes or changing the management of the schools. Congress had no such intent.

Many citizens think that critical innovations in education are obstructed by the existing professional establishment. In Six Urban

School Districts: A Comparative Study of Institutional Response, Marilyn Gittell and Edward Hollander said:

> "The insulation of public education is twofold: bureaucratic centralization. . . reinforced by an ideological rationale of professionalism. . . The result is a static, internalized, isolated system which has been unable to respond to vastly changing needs and demands of large city population."

Such observers are not favorably impressed by gains made by Title III. They are more sympathetic to gains made in programs of Title I and the Office of Economic Opportunity, but they are not satisfied by them either. Many citizens yearn for schools to lead the way in breaking down the monopoly of privilege held by the upper and middle classes of our society. Title III has extended some important privileges to the educationally disadvantaged, but it is no instrument for the renovation of social values. It was not intended to be. Especially in its amendment of 1967, the law supports the same viewpoints on allocation of privilege that have prevailed for decades: reward accrues to those who excel. The alternative holds that all should share in the rewards of an effective economics system, that all should share in the benefits of a secure community, that all should share in opportunities for education. This alternative is preferred neither within the professional ranks nor outside education today—and nothing in Title III promotes a renovation of these values.

A majority of Americans see American education—its constitution and its values—as essentially sound. They see it staffed by reasonably trained, well-meaning men and women. They see it as very expensive, hard pressed to make do on the funds it has, barely able to venture out in any way. Title III has provided "venture capital." These people can take a measure or pride in Title III because it has enabled some of the best ideas of our school people to be blueprinted and engineered.

The preponderance of educators who have studied the effects of this portion of the Elementary and Secondary Act are convinced that this federal money was a "shot in the arm"—an opportunity to innovate, to collaborate, to obtain help from specialists, to "stretch out" in ways that the schools have never previously been able to afford. Although most of these observers are aware of isolated instances of bumbling and misguided effort within the program, the consensus is that Title III moneys have been spent on a sensible purchase. Whether or not we are getting a bargain, and whether or not we should purchase more of exactly the same are matters of some disagreement, but there are few educators who would recommend large changes in Title III.

The Impact of Title III

Nothing persuades me that Title III has brought a new brilliance or tenacity or compassion to the classroom. Brilliant, persisting, compassionate teachers are working in Title III projects. Wise, creative, and dedicated people have taken jobs in education because Title III moneys are available, but so have persons of little talent. The extent to which education draws from the upper levels of the national talent-pool has not been altered by Title III. The same can be generalized to include other supplementary programs. We do not have evidence that *with* this aid the education sector of the national enterprise operates at a higher level of effectiveness than it does without.

Nothing in the studies of Title III activities suggests that U. S. education is spending these moneys more wisely or less wisely than the local school is spending the other moneys available to it. *The continuation of support for Title III—at this time—must rest on the fact that it is enabling the schools to provide learning opportunities, to innovate, as they otherwise would not, in ways that are generally judged valuable by educationist and layman alike*. Whether or not greater benefits would have obtained had the same moneys been used otherwise is something no one knows.

It is reassuring to know that our national leaders are upset by the lack of better evidence. Peter H. Dominick, U. S. Senator from Colorado, has said:

> "As a legislator, I am vitally concerned whether [Title III projects] are in fact accomplishing the objectives envisioned by Congress and whether the money appropriated is being properly spent. . . I am specifically concerned about whether the programs conducted will have a lasting

> effect on the school—or if, when the money for a project is exhausted and the initial program is terminated, the tent will be folded with little or no imprint left on the educational processes of the school system."

And Patsy T. Mink, U. S. Representative from Hawaii, has advised us:

> "...I hope to find... some of the evaluative information that is lacking now to enable us to judge the relative effectiveness of Title III programs around the country. I recognize, of course, the inherent difficulty in applying any reliable measurement to those projects aimed at cultural enrichment, whose results are intangible and so diffuse as to defy evaluation."

Neither they nor the taxpayer nor the local PACE project director will find that information, that evidence, in 1968. The studies that might have given even shreds of evidence have not been undertaken. It is not reassuring to realize that we Americans have no better evidence of the impact and tactical wisdom of the Peace Corps, the U. S. Marine Corps, the U. S. Postal Service, the Ford Foundation or the Roman Catholic Church. Our judgments of them—and of Title III—will continue to reflect our values, our faith, and the apparent logic of their reasonings. Still, our judgment should be swayed by information from the field, but systematic collection of that information is just barely under way.

A most serious obstacle is the incompatibility of information from different projects. Partly because they have different purposes, but partly also, because they have different ways of expressing common purposes and common results, the impact of Title III is difficult to summarize.

> "School statistics as at present compiled and compared are unreliable and of little value, and they will continue to be so until agreement can be reached not only as to terms used and the definite meaning of these terms, but also, to some extent, as to the method of recording and arranging the original data upon which school statistics are based."

It is dismaying, on the one hand, to realize that these words, so relevant today, were written in 1912 by the U. S. Bureau of Education's Committee on Uniform Records and Reports. But it is encouraging, on the other hand, to realize that that Committee was concerned about the lack of uniformity in fiscal accounting in schools— a disorder that has been greatly alleviated in the intervening 56 years. Budgets, inventories, and personnel accounting are now sufficiently orderly that the administrator can understand his fiscal position; and the technical language is sufficiently defined and in vogue so that he may talk meaningfully with colleagues unfamiliar with his operation. Not so the instructional supervisor. He has only his personal experience upon which to register the accomplishments of his wards and little more than the language of the layman with which to summarize their deeds.

The same people who brought order out of chaos in the fiscal realm are attentive to the needs for achievement accounting. One agency, the Data Compatibility Group of the U. S. Office of Education, is in the final stages of publishing a dictionary of characteristics of the learning situation. The authors, John Putnam and W. Dale Chismore, say:

> "The universal use of the terminology in /our/ handbook can improve the quality of education by facilitating meaningful evaluation, realistic planning, and efficient operation of educational systems throughout the United States... Reports based on these items of information will not only merit the full confidence of their users but will be more easily interpreted and more useful."

Evolution of Title III Priorities

But another obstacle to evaluation (of all socio-educational programs) is the evolving character of goals and priorities. As social conditions change, as attitudes toward those conditions change, and as ideas succeed and fail, we seek new approaches, we reallocate our efforts. It is to the credit of any institution that it is sensitive to changing demands on it. PACE administrators have reformed and refined their statements of aim and priority. The evolution of Title III priorities (in an oversimplified representation) is shown in Figure No. 1. It is apparent that the priority statements have reflected the nation's attention. To many observers, Title III has been "keeping up." Its evolution of priorities is something to which it may point with pride.

The evaluator tends to view such changes with alarm. He is sensitive to the difficulty of evaluating a program whose goals and priorities ebb and flow. With new goals, different performances need

EVOLUTION OF PRIORITIES FOR TITLE III EDUCATION PROGRAMS

President's Task Force on Education	PL 89-10 Title III Purpose: 1965	Title III Advisory Committee:	Nolan Estes, Assoc. Commissioner; Priority Funding (early 1967):	Revised Priorities (mid 1967);	Harold Howe, Commissioner; Primary Priority, FY 1968:
To stimulate and expand experimentation and innovation in education	To provide supplementary centers and services not now available	Fostering innovation, exemplary programs	Equalizing educational opportunities	Aid to deprived children in city core	Aid to deprived children in city core
	To create exemplary educational programs	Funding new uses of available facilities	Planning for metropolitan areas	Programs to advance "individualized instruction"	Secondary Priority, FY 1968:
		Multipurpose, high cost, visible projects	Meeting needs of rural communities	Exemplary programs of early childhood education	Better education in geographically isolated areas
			Coordinating all community resources	Quality education for minority groups	
				Better education in geographically isolated areas	
				Build planning and evaluation competence	

Figure No. 1

to be measured, different methods of teaching need to be observed, and different effects need to be assessed. Some evaluative studies, once thought to be vital, become incidental even before their completion, and the studies now considered vital never got launched.

Is there any hope for evaluation? Clearly, there is. The kind of evaluation that will offer some durably useful information will anticipate these changing conditions. Major studies must be broad, comprehensive—attending to changing cultural conditions and to changing aspirations of the people.

Unfortunately, there is little respect among the USOE planners for broad, comprehensive, longitudinal surveys. The skills of the anthropologist, the social-survey specialist, the ecologist or the educational historiographer are in little demand. They should be in high demand. There is at least some support in Congress for this kind of evaluation. U. S. Representative Marvin L. Esh from Michigan has said:

> "...I am not so certain that a mere recounting of the scope and methodology of...projects would contribute much to the information we most need in order to make legislative decisions. We could best use the kind of program evaluation information that could be supplied by an agency such as the Institute of Social Research of the University of Michigan."

Whether it draws talent from Michigan or elsewhere, the USOE could profitably broaden the spectrum of its evaluation in this manner.

Short- vs. Long-Range Investments

The advocates of Title III are sometimes promising too much from it. They had said that today's pupils will get a better education and that the planners of tomorrow's schools will learn how to provide a better education. A double payoff is too much to expect.

PACE is a developmental program. It supports the development of new teaching techniques. It is an investment in improving learning opportunities for the present generation of school children. I am not questioning the essentiality of this investment when I call it a short-range investment. In the sense of educational planning and classroom instruction, Title III is a short-range investment. Its payoff is for the present generation, only very indirectly for subsequent generations.

We educators hope to learn something from these Title III programs. We are evaluating them partly because we want to understand what makes them succeed or fail. As prototypes, these innovative programs are valuable—they give us something concrete to talk about. But they add little to our insight for designing programs. Insight is more than inspiration; it is a comprehension of the workings. If verbalized, it is a set of generalizations about causes and effects. We should not expect that evaluations of Title III field projects will supply us with generalizations about optimal ways of administering supplementary centers, or about providing novel opportunities for learning. In each of the field projects, hypotheses should be generated, hunches tried out, and experience increased. These do lead to better efforts next time, especially under similar circumstances. But, valid and durable generalizations come from research studies—studies aimed at the link between cause and effect—and seldom from developmental studies. Even the best evaluation of an innovation can leave the reader guessing as to what were the critical ingredients for success or failure. With extensive experience, or better yet, with controlled observation, the critical ingredients just may be discernible.

Trying-out a good idea and researching a good idea are quite separate endeavors. No authorization was given in Title III for educational research. If the nation wants to invest in schooling for the next generation of children, it should devote a substantially greater portion of Office of Education moneys to Title IV (Research) activities, and it should insist on a substantially greater allotment of Title IV funds for instructional research rather than development.

The developmental activities now supported by Titles III and IV are designed for alleviating immediate needs, not for extending our comprehension of the processes that facilitate intellectual and social maturity. No evaluation of Title III—no matter how thorough, no matter how "hard-nosed"—will reveal what was not intended to be there in the first place—a systematic inquiry into the instructional process.

The U. S. Office of Education

With matters specific to Title III, the Office of Education has been the middleman between Congress and the educator—a coordinator of efforts, an auditor of accounts. Its major efforts with Title III have been to acquaint the profession with the intent of Congress, and to provide guidelines for the expeditious handling of proposals. The Title III staff has appeared to accomplish these functions with care, sometimes with punctuality, and even occasionally with grace. As a group, the staff seems distinguished neither by wisdom nor ineptitude, but it does seem clearly distinguished by dedication to its task. These men are not the rattlebrained spendthrifts imagined by so many an anti-federalist; these are not the malevolent usurpers of local authority. These are schoolmen from Nashville and Willimantic, once wooed with a gossamer wage and the chance to do something for the good of the people, now beset with such myriad obligations and deadlines that nothing ever gets done quite to anyone's complete satisfaction.

That does not leave much time for evaluation. There are a few (perhaps three full-time equivalents) on the staff, especially assigned to evaluation; but evaluation there has meant, more than anything else, solicitation and processing of evaluation statements from the local projects. They are caught by pressure from the National Center for Educational Statistics to find out what changes in children are actually happening, by pressure from local educators to keep out of the way, and especially by pressure to design forms and guidelines for fiscal years to come. They do not get around to doing any evaluation. U. S. Commissioner of Education Harold Howe has had this to say about evaluators:

> "Finally, I would season my stew with a dash of disquiet between the innovators and the evaluators. I think there should always be a slight uneasiness between these two camps, a feeling of discomfort like that between skepticism and faith. I'm not saying that innovators and evaluators should not like and respect each other, but I am saying that they should stay on guard as they associate. If the innovators successfully capture the evaluators, then what the evaluators have to say won't amount to much. If they are captured, what they will be doing—whether they realize it or not—is trying to find devious ways to prove that the innovators are right. One of the great shortcomings of modern-day educational innovation, to my mind, is that, by and large, the innovators have captured the evaluators."

Not so with Title III in-house evaluators. They never were free to be captured to start with.

Antecedents at the Federal Level

For most of its existence, the main contributions to evaluation of the USOE were its environmental surveys. It kept a tally of the nation's students, teachers, districts—the resources and settings for education. During the 1930's, the nation developed a proclivity for conceptualizing education in terms of the individual child, and measurement and evaluation were oriented to describing the standing of this individual within his group. Curriculum developers were pledged to arranging educational experiences to meet his special configuration of needs. The teacher, as guidance specialist, and the academic counselor were the primary evaluators of the day. Such artifacts as course grades and standardized test scores were classified formally as evaluation, but contributed little to that activity. The federal government was not expected then to share in the movement; USOE took a minimal evaluation role.

Later, in the 1950's, when research funds were available from USOE, the range of environmental surveys stretched out to include sociological studies such as "Equal Opportunity" and trait analyses such as "Project Talent." Here still, the emphasis was on description: descriptions of students and of the communities in which they lived.

Educational researchers and technologists have been critical of environmental surveys that paid little attention to educational objectives and student behaviors. As such specialists accepted offices in, or consulted with, USOE; as the National Center for Educational Statistics became more influential; as the nation became frustrated by its inability to see the "payoff" of its new investment in education; guidelines for evaluation have increasingly emphasized behavioral objectives and outcomes. Often the official—as well as unofficial—advice to the project director has been, "specify your objectives, measure the changes in behavior, and compare the program group to a control group." These three steps have not been mandated by federally supported projects, even when evaluation has been mandatory, not because the USOE program supervisors did not prefer it, but because they were not granted that much prerogative. Nevertheless, they echoed the call for "hard data"—objective measurements of behavioral change unequivocally related to treatment. USOE has sounded that call with frequency, and at times with fervor.

The Quest for Hard-Data

Among the research-oriented guidelines to evaluation have been Walbesser's (1965), Metfessel and Michael's (1967), and the Title I evaluator's manual, written by Neidt and French (1966). These aids focus on the one question, as Walbesser puts it, "What do we want the learner to be able to do after instruction that he was unable to do before instruction?" They take the position that the value of a program does not exist independently of its impact on the individual learner. The focus of evaluation, then, must be on changes in pupil behavior. The honesty and good sense of this orientation are obvious. Nevertheless, the advice is seldom heeded. The majority of evaluations of educational programs and institutions today do not give even secondary attention to student accomplishment. Evaluative Criteria (1960), the major checklist for secondary school self-study and accreditation, for all its thoroughness, does not even imply that it would be useful to observe student productivity or to gather achievement test data. The First Annual Report (the 1965-66 evaluation of) Title I does not reveal one bit of objective information about what the disadvantaged learners actually learned.

But the obvious need for evidence of behavior change is ignored, with some considerable justification. Educators have not found instruments to measure the changes that they believe do occur. Test scores are not easy to interpret. In terms of content or in terms of specific skills, scores on different tests are difficult to equate and to compare. Scores on most tests are so global that educators will seldom accept no-change as evidence of no learning. Furthermore, they will seldom accept measured change as evidence of worthwhile learning.

A second reason why many educators resist the hard-data approach is that they sincerely doubt that their purposes can be expressed adequately in terms of behavioral objectives. Atkin (1968) has objected to the preplanned specification of objectives, saying:

> "...the fundamental problem, as I see it, lies in the easy assumption that we either know or can readily identify the educational objectives for which we strive, and thereafter the educational outcomes that result from our programs. ...we presently are making progress toward thousands of goals in any existing educational program, progress of which we are perhaps dimly aware, can articulate only with great difficulty..."

Although some of the objection to behavioral preplanning might be attributed to a desire not to be held accountable, the claims of such educators are not irrational. They are worried about the undesirable side effects of the hard-data approach. The behaviorists, like pharmaceutical houses, have a responsibility to show that the quality of scholastic achievement in our schools is not injured by a "behavioral-modification" commitment.

From the evaluator's point of view, behavioral evaluation schemes are important components in any grand plan for evaluating instructional programs. Taken alone, these schemes may be too inattentive to many of the complex but important phenomean of instruction. In attending primarily to the outcomes of education, these models tend to leave the audience with little knowledge of the instructional activity which brought about the intended and accomplished change. If, in a school, the "same growth change" is next year's objective, it is reasonable to prescribe the same setting and transactions. Most behavioral-change models do not guide the educator toward making, setting and transaction a matter of record. Taken as they are, they are not easily coupled into an educational decision-making strategy.

The Planning-Programming-Budgeting System

Because there have been extensive claims of success for military cost-accounting, and because people everywhere are concerned about the soundness of federal expenditures, several forms of economic summative evaluation have become prominent in discussions of planning and reporting federal programs. In July, 1967, Charles Schultze, Director of the Bureau of the Budget, provided offices throughout the federal government with guidelines for a Planning-Programming-Budgeting System (PPBS). Developed by a Department of Defense official, Charles J. Hitch, PPBS is a management information system which identifies alternate tactics for a given objective in terms of function and cost. Its program budgeting parcels out each expenditure, not to what was contractually purchased but to the outcomes attributable to it. The PPBS system analysis optimizes the ratio of benefits to costs. According to Hitch, the main purpose of PPBS is to make institutional decision-making both "feasible and realistic."

> "The function of systems analysis is to get dollars into the calculations at an earlier stage, into the planning process, into the evaluation of alternative ways of achieving [the] objective."

These procedures are expected to provide a statement of the costs of various benefits accrued. The purpose is a worthy one, but even the promise of using such a model—in the absence of an acceptable common denominator of resource utilization (cost), and in the presence of multiple and sometimes contradictory goals (benefits)—has not yet been demonstrated to the satisfaction of even a minor sector of the nation's educators. Their reticence would not be criticized by Hitch. He said:

> "There are risks and dangers as well as opportunities in the application of new management techniques—including the risk of discrediting the techniques, if one tries to move too far too fast. Although it did not appear easy at the time, there is no doubt in my mind that the Department of Defense, or much of it, is easier to program and to analyze quantitatively than many areas of civilian government. For example, it is certainly easier than the foreign affairs area. Quite apart from these difficulties, the substantive problems in other areas are different and new. In Defense, we had several hundred analysts at the RAND Corporation and elsewhere developing programs and systems analysis techniques for a decade before the department attempted any large-scale general application."

It will be especially difficult to "program" education. The benefits of education are not only many, but they run in greatly differing patterns for different people. Effects considered desirable by some are undesirable to others. Are such effects costs, or are they benefits? And difficult though the criterion or output problem is, some observers, such as Malcolm Provus of the Pittsburgh schools, see the input problem as even greater. Getting dollar measures of what goes into education, especially the intangibles, and descriptions and classifications of the inputs is a formidable obstacle to the Planning-Programming-Budgeting System. Obviously (and PPBS specialists are aware of it), no single, simple, cost-benefit ratio will tell much about a training activity or a federal program.

Still, in the evaluator's search for new language, he would make a great mistake not to include economic indicators. How much a cost-benefit ratio can tell his audience is not known until his audience has had a chance to validate it against other observations. (Unlikely as it may seem, the length of a column of liquid in a glass tube may be a good indicator of personal comfort, at least after the person has had a good chance to experience the covariation.)

The CIPP Model

To deal more effectively with the evaluation of its numerous Title III projects, USOE has recently utilized the CIPP evaluation model authorized by Dan Stufflebeam (1967). This model orients data-gathering to decision-making, and vice versa. With appealing logic, Stufflebeam contends that the primary evaluation information gathered by the local staff should be that which is useful in making rational decisions about the local operation. This information is expected to be useful, when accumulated with that from other projects, in making decisions at the system, state and federal levels. The tempo of this information flow is not to be dictated by the due-dates for formal reports, but should be cycled to conform to the decision-maker's needs for feedback information.

The adoption of this model should be seen as a major advance by the USOE in its efforts to be of service to local activities. USOE has a legal and professional obligation to evaluate. Much of the thinking of its staff concerning evaluation has been directed by Stufflebeam to where it should be of great benefit—to the local level. The emphasis on information for rational decision-making is consistent with the technologist's yearning for rationality. Unfortunately, the CIPP model seldom sates his appetite for cost determination and behavioral evidence. The principal defect of the CIPP model is that information gathered to aid local decision-making will seldom be the aggregate of information most useful for program-wide decisions. Additional information is needed for federal and state decision-making and progress-reporting. Evaluation activities beyond those operationalized by the CIPP model are required.

When the chips are down—around USOE or in any bureaucracy—the "old-reliable" way of evaluating a program continues to be: appoint a commission or advisory panel. If any large educational institution intensely desires to find out something, the formal sociological survey or experimental study is likely not to be relied upon. Rather, a team of respected individuals is asked to visit, examine, and pass judgment. The fact that these commissions and panels often make thorough observations and draw insightful inferences does not excuse administrators from relying so heavily on such a primitive form of gathering and reporting information. Nor is it anything but an indictment of the educational-measurement specialists for not having demonstrated the superiority of more objective, reliable, valid, comprehensible and action-oriented methods of evaluation.

The Need for Information

Each of the models discussed in the previous paragraphs has its strengths and weaknesses. No one of them is a suitable model for all evaluation activity. A focus on student behaviors, or on management decisions, or on community needs, obligates the evaluator to ask special questions. Different foci require different bodies of information. What information to gather, what audience to serve, what language to use—the evaluator must make some tough decisions. His decisions depend on other decisions.

The purpose of evaluation, Stufflebeam has told us, is decision-making. There is no justification for evaluation where there are no decisions to be made—and where there are decisions to be made, there is need for evaluation. There are many decisions to be made about the implementation of Title III, many different kinds of decisions. It is reasonable to expect that there will be many kinds of evaluation to guide those decisions.

We can represent three major kinds of decisions and evaluation needs by three questions:

> What is the destination?
> Which path shall we take?
> What pace shall we set?

This is a way of saying that we make decisions about our goals, our projects, and our tactics—many decisions about each. If our decisions are to be rational, overt, deliberate, as opposed to intuitive, covert, and impulsive, we need information. Formal evaluation is a major source for that information. As different information is needed, different evaluation plans must be available.

Of course, there is no one-and-only time at which we decide where we are going, which path to follow, or how to proceed. We make these decisions sometimes formally and with a bit of ceremony, usually informally, always repetitively, with conscious and unconscious review, checks and balances. In addition to the three questions above, then, we should add these:

> Are we headed for the destination we chose?
> Are we on the path we chose?
> Are we proceeding in the manner we planned?

These are status-checking questions, the questions of mechanical governors, the questions of self-synchronizer units in the cybernetic system. They are important questions, leading to important decisions—but they are different from the first three, and require different observations and information.

Evaluation Issues

What information for what decisions is indicated in the evaluation plan. Several Grand Plans, basic models, are available. Stufflebeam presented one. Such people as Henry Walbesser (1965), Michael Scriven (1967), and I (1967), have presented others. These plans or models differ in the help they offer the decision-maker. I think it would be helpful here to indicate some of the issues raised by the different models. We evaluators of this colossus, Title III, should be aware of these issues.

The desire for the evaluation of educational programs is not new, nor is it a particularly strong desire among practitioners. But, the current abundance of models for evaluating seems new to me. Some new models emphasize the use of conventional tests while others do not. Other differences are (a) the importance of the classroom teacher as a developer of curricula, (b) reliance upon the developer's intuitive, rather than rational, skills, (c) emphasis on subject-matter-content goals, as opposed to intellectual-process-and-skill goals, (d) whether or not assessments will be limited to the developer's stated goals, and (e) the importance of building-in plans for reassessing goals both during and after the developmental phase.

One important inventory of evaluation issues was offered by Scriven. According to him, the important dichotomies are:

1. Formative vs. summative evaluation, i.e., evaluation during development to check the quality of components vs. evaluation after completion to check the quality of the whole.
2. Professional vs. amateur evaluation: not only how well trained are the personnel in measurement and research methods, but also, are they professionally competent to deal with the subject matter, the teaching methods, the philosophical issues, etc. —and in addition, are the evaluators disinterested parties?
3. Evaluation vs. process studies, i.e., studies to

discover the worth of a program, against studies to discover the nature of a program, is the emphasis more on judgment or description?

4. Intrinsic vs. payoff evaluation, i.e., studies to discover the quality of the input vs. studies to discover the quality of the outcomes.

5. Comparative vs. noncomparative evaluation, i.e., studies that compare alternate programs or procedures, with or without a so-called control group, vs. those which concentrate on the experimental program or procedure alone.

6. Evaluation vs. explanatory studies—explanatory studies are expected not only to indicate the "whys of the outcomes," as Tom Hastings (1966) puts it, but also to generalize beyond the specific curricula used.

Title III Evaluation Components

Title III of PL 89-10 calls for supplementary centers to facilitate educational innovation in schools throughout the country. Like any federal program,*/ it has its rationale, its purposes, its participating projects, its procedures, its obstacles and its reward system. It also has a network of decisions, decisions which vary in kind and in purpose. An evaluation of Title III activities requires evaluation activites that vary in kind and in purpose as well.

Let us consider the general components of program evaluation.

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*/ Contrary to official usage, I am using the term "program" to indicate the entire Title III operation. The term "project" here refers to any local undertaking, simple or compound.

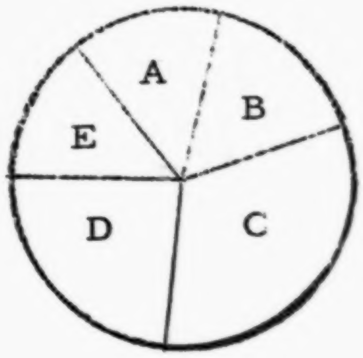
I cannot help but oversimplify, but let me isolate four components: goals, projects, tactics, and outcomes. First, goals.

I will not summarize the important emphasis Ralph Tyler (1950) and many colleagues have given to goals, nor will I identify (as I did earlier) the goals of Title III. I want to observe here that goals are defined first in terms of wants, and only second in terms of words. Every attempt to translate wants into words will be less than perfect. Any list of goals (statements of behavioral objectives or otherwise) is suspect if it either appears to supercede the wants or to represent them as unchanging. Any evaluation must presume that stated objectives do not perfectly represent what is wanted. I have already made the point that goals are—and should be—fluid. I will make the point next that a valid list of educational goals will contain competing and even contradictory goals. Goals are competitive in the sense that each pursuit costs something. Unfortunately, the total of our resources will always be less than the cost of pursuing all goals. We have to choose between our goals. We assign priorities to them. We may do this consciously or unconsciously. But we do it. It is a matter of choice, and we have no choice but to choose.

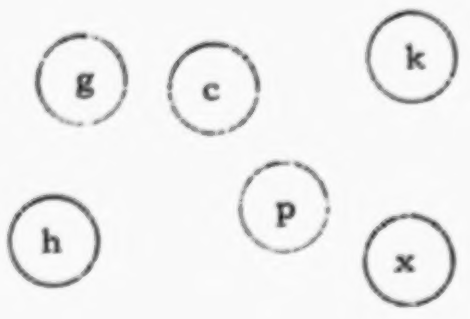
Goals will be contradictory. Often we seek incompatible outcomes. We try to teach faith and skepticism. We try to instill deep appreciation, and yet provoke aspiration for something better. We try to give teachers an opportunity to be creative, yet we try to bolster instruction through reasonable insistence on using the methods, topics, and materials of time-tested programs. We seek to serve a pluralistic society. Contradictory goals are to be expected in a pluralistic society. We cannot hope to pursue only goals that are perfectly complimentary and universally wanted.

Our evaluators must realize that goals are changing, competitive, and even contradictory. A program evaluation is incomplete if it ignores this fact, if it goes no further than listing the specific goals at time zero. To understand the Title III operation and to ascertain its value, we are obligated to identify goals, ascertain priorities, reveal the dynamics of changing priorities, and provide information for decisions about new goals and priorities. This is not to say that these things must happen first before we do anything else; nor is it to say that we must be as specific as a blueprint; but, as part of the operation, we must obtain some communicable representation of the wants this legislation was designed to alleviate and of the transformation of these wants into other wants over a period of time. For this moment, please accept my representation of Title III goals in the figure on the right, a reminder, perhaps, that the Title III dollar does not alleviate everyone's wants.

Title III Goals



Second, Projects. There are many pathways to the goal-destination. Title III administrators must choose among paths, among projects. . More plans will be proposed than can be followed; some must be selected, some must be rejected. Each project has its goals. Some projects will concentrate on a single goal; most pursue a complex.

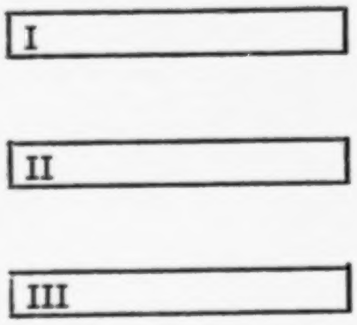


Title III Projects

The rationale of a project may be independent in spirit—it can emphasize local problems, local resources and local remedies, but it cannot be unrelated to general goals. Each local program proceeds in certain determinable ways to facilitate, or obstruct, the pursuit of national goals. The success of Title III is not merely the aggregate of progress and setback in the pursuit of local program goals. There is a national purpose—as represented by interpretations of the legislation—and, however close the fit, it will not coincide perfectly with the aggregate of project purposes.

And Tactics. Even when the target and path are set, there are many modes of travel. No one tatic is necessarily right. Whether the Title III project is a multi-school dreadnaught or a lone knight-errant, each proposal cites special resources and techniques for doing its deed.

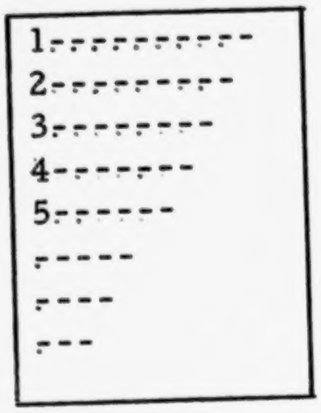
One generalization we have learned from educational practice and research is that almost any technique will work, at least in some circumstances. We are often persuaded that a favorable combination of resources—community, school, and home—is more influential than the pedagogical techniques we employ. But we have no choice but to continue searching for better tactics to overcome the seemingly immutable, deleterious educational conditions in many communities. Our evaluation must consider the alternate tactics among which we search.



Project Tactics

Last, Outcomes. Any one project can be measured in terms of its outcomes. The changes will be many: student achievement and attitudes, teacher maturation and alienation, organizational efficiency and compassion, renaissance of hope and initiative. There will be costs which, in a sense, are outcomes: expenditures of money, time, and effort; drains upon public and family confidence; etc. It is certain that few changes will be easy to measure, and fewer still directly ascribable to the Title III effort. But there they are: costs and benefits, seen in different coin by different groups, various views of which are essential as description of the project and essential as an information base for decision-makers.

There is little sense in viewing the success of a project as unidimensional. There is no single criterion outcome that is paramount nor any composite that is a satisfactory index of success. As there are multiple goals, there are multiple successes and failures with any endeavor. A project is unfairly considered if its record is reduced to a single value-dimension. So it is with the overall Title III program.



Outcomes

We seldom need such reduction. Sometimes a decision-maker must make an all-or-nothing decision, such as continuance or abandonment. Then, some single continuum of value is an important fact of life. But most decisions pertain to degree of emphasis, here and there.

There are occasions when only one of several projects (or tactics) can be supported, where the goal priorities are similar, and where each promises a different profile of outcomes, or where each has registered a different profile of gains, with no profile clearly superior. When only one can be supported, a single continuum is again a necessary fact of life. The decision-maker must weigh outcomes in order to arrive at a single index of desirability. Clearly, one project must be rated superior to the others. But these are not common occasions. More often, the proposals competing for immediate funding are either not so similar in goal priorities, or else the superiority of one of the proposals is clear.

To make a claim or two, I will arrange the four components together in Figure No. 2. The arrows indicate the existence of a cyclical influence, one on the other. Each component is influenced by local community conditions. The claims are these:

1. A rational setting of goal priorities and funding of projects rests upon knowledge of:
    a. what goal alternatives (wants) there are
    b. what resources are available
    c. what types of projects can be funded
    d. approximate cost/benefit ratios for various types of projects

2. Certain projects are selected for funding. By careful plan, or merely in effect, a certain combination of goals is operationalized.

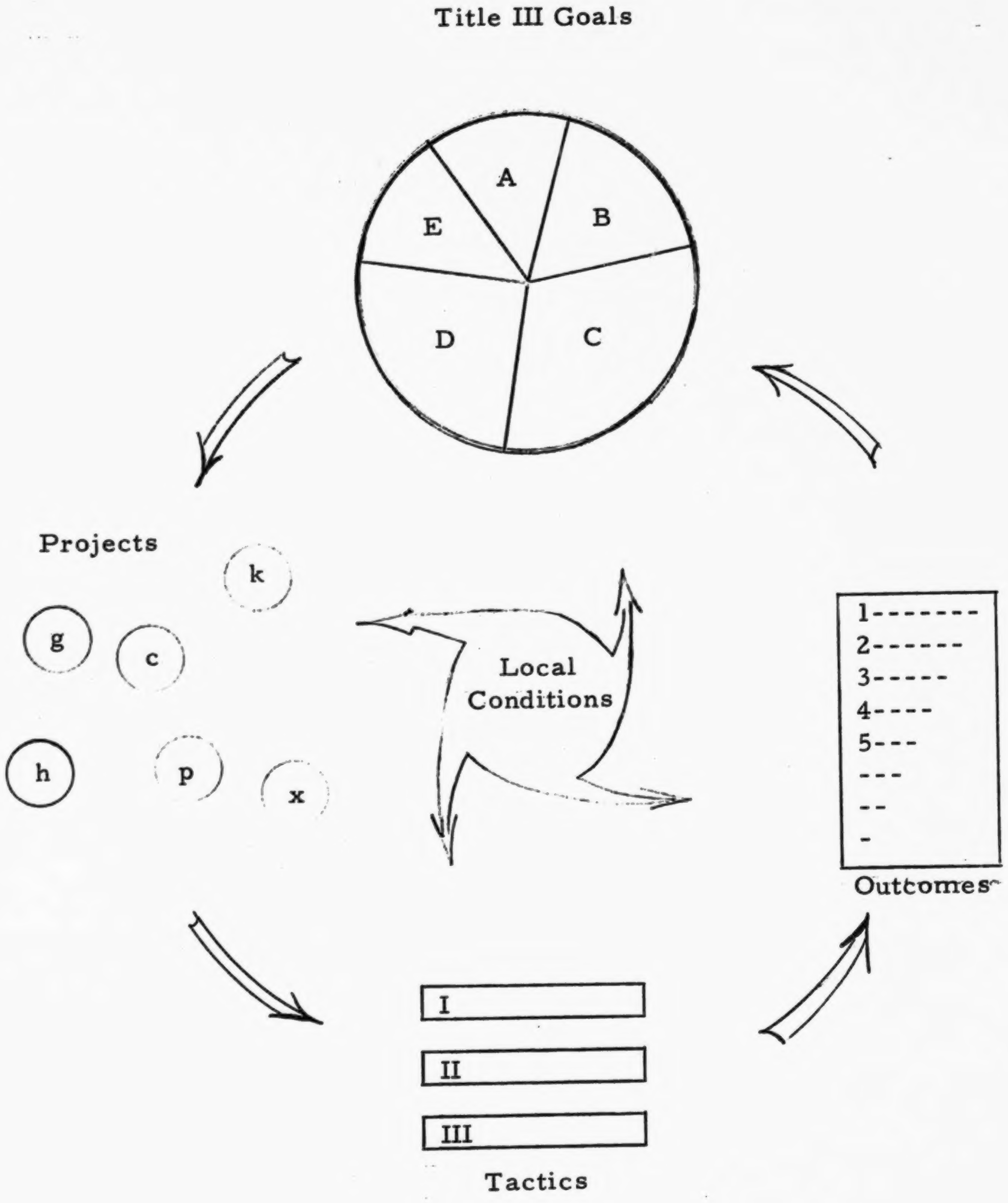
3. Different tactics are selected for each project. The choosing of tactics continues through the duration of the project. By plan, or in effect, these tactics operationalize a certain combination of project goals, and through aggregation, they operationalize a certain combination of program goals.

4. A rational choice of tactics rests on knowledge of:
    a. project goals
    b. what tactics are available
    c. contingencies between tactics and outcomes
    d. what resources are available
    e. the costs of various tactics

5. Outcomes are functionally dependent on tactics, given a set of local conditions.

6. Goals can be defined as some combination of outcomes.

The principal consideration of these comments is that a sequence of decisions is there to be examined both at the federal and local levels.


Title III Goals
A
B
C
D
E
Projects
k
g
c
h
p
x
Local Conditions
1-------
2------
3-----
4----
5---

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-
Outcomes
I
II
III
Tactics

Figure No. 2. A representation of the major components of the Title III program.

A Decision-Evaluation Matrix

To elaborate on the role I think evaluation should play in Title III, I have drawn up a matrix in Figure No. 3. The matrix shows the need for data for decisions. It does not show when it is gathered, nor—as the CIPP model does—how it flows back into the program operations.

I set federal and local decisions/evaluations apart, although much of the activity at those two scenes is parallel. This is not to say that the aggregate of information gathered for local decision-making will suffice for national decision-making, but it is clearly a large part of what is needed.

In addition to the six questions raised in the opening pages of this paper, I have raised several others concerning expected and observed outcomes. Included in the observed outcomes are the "hard data" for which there is such a rowdy official appetite these days. Those outcome data are important, but no more so than the other evaluation data indicated in the second and fifth columns of the matrix. At least that is the way I see it.

In the third and sixth columns of the matrix, I have named eight different evaluation activities. I have borrowed from Scriven here and from my countenance paper (1967), but I have put a new slant on some of the terms. I would like to give them formal definitions, as follows:

DECISION LEVEL	Initiative Decisions	Additional Information Needed	Evaluation Activities	Maintenance Decisions	Additional Information Needed	Evaluation Activities
FEDERAL PROGRAM	Which goals to pursue?	Rationale Wants National Resources	Priority Setting Environmental Survey	Are we now pursuing goals we choose?	Project goals effected	Goal congruence study
	Which projects to support?	Alternative Proposals Cost-Benefit Ratios	Intrinsic Evaluation Project Summative Evaluations	Do we have the program we thought we were getting?	Project Activities	Intrinsic Evaluation
	What results to expect?	Feasibility Local Conditions	Feasibility Study Environmental Survey	Are we getting the results we expected?	Project Outcomes	Payoff Evaluation

DECISION LEVEL	Initiative Decisions	Additional Information Needed	Evaluation Activities	Maintenance Decisions	Additional Information Needed	Evaluation Activities
LOCAL PROJECT	Which goals to pursue?	Rationale Wants Local Resources	Priority Setting Environmental Survey	Are we now pursuing goals we choose?	Project goals effected	Goal congruence study
	Which tactics to employ?	Alternative Tactics Means-Ends Relationships	Intrinsic Evaluation Formative Evaluations	Are we using the tactics we planned to?	Project Activities	Intrinsic Evaluation
	What results to expect?	Local Conditions tions Previous Results	Environmental Survey Summative Evaluation	Are we getting the results we expected?	Project Outcomes	Payoff Evaluation

Figure No. 3. A decision-evaluation matrix for planning Title III evaluation activities.

1. Priority Setting—A study of wants under a given rationale or philosophy, leading to preferential rating of goals, with implication for implementation.

2. Feasibility Study—An estimation of the costs of overcoming various obstacles to implementing a given program or project.

3. Environmental Survey—A gathering of information about the setting in which the program or project will occur, including its resources, social institutions, existing programs, personnel, organization, etc.

4. Goal-Congruence Study—A study of the relatedness of goals of different undertakings, or of the relatedness of stated goals to those implied by practices.

5. Intrinsic Evaluation—An analysis of the logic of the plans and activities of a program or project, providing judgments of relevance and value of various components.

6. Payoff Evaluation—An empirical study of the degree to which observed outcomes approximate intended outcomes.

7. Formative Evaluation—The empirical study of the effects of various tactics, emphasizing functional relationships potentially useful to other program development.

8. Summative Evaluation—The empirical study of the effects of a whole project under given environmental conditions, preferably with comparisons to alternate projects.

These are the types of studies needed for even the first evaluation responsibility—that of telling what the program has done, and how well the people like it. The methods for some of these studies are available; other methods are still to be developed. The fact that the nation's educators are not tooled-up to evaluate their programs is one reason why we have not effectively evaluated Title III. But, the blame for not being tooled-up is partly the fault of the U. S. Office of Education. The Commissioner has been just as willing as the American educator to make the short-range investment in teaching without a companion long-range investment in evaluation.

CONCLUSIONS AND RECOMMENDATIONS

by Richard I. Miller[*/]

Is PACE really a "catalyst for change," or is it becoming service money for local schools to do what they should be doing anyway? We hinted at the question in the First National Study of PACE, but now it needs to be faced head-on. Two basic changes in the nature of ESEA Title III—the turnover of control to the states, and the turnover of 15 percent to the handicapped—force careful consideration of this question.

CONCLUSIONS

Before turning to some "final" conclusions, let us look at two other statements of conclusions about ESEA Title III. The first one

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[*/] Identified in initial section.

The conclusions and recommendations made in this section are those of the Director of the Study and do not necessarily reflect the unanimous views of the members of the study team. One exception, however, is Report No. 2 which was unanimously agreed upon by all members of the study team.

was made in the January, 1967, report of the First National Study Team on PACE. It stated:

> "Considering everything—weaknesses and strengths, blunders and triumphs, politics and purity—Title III has thus far achieved outstanding success, probably more so than any other ESEA Title. Success is due:
>
> 1. To its stimulating and fresh nature, which catches the imagination and zeal of the most dynamic and creative individuals in the public schools.
>
> 2. It provides public school people with a unique opportunity. In essence, PACE is betting on the vitality and vigor of American education at the local levels, and the bet is "paying off" contrary to some predictions that localism in education personifies status quo conservatism.
>
> 3. Its success is due, in no small measure, to Office of Education Title III leadership, to that offered by some states, and to leadership offered at the project level."

The second statement was made in March, 1968, and received by unanimous endorsement of members of the Second National Study Team. The evaluative dimension of the report reads:

> "In the course of its work, this study team has examined several hundred Title III proposals and inspected close to 200 projects in the field. Taken as a whole, considering the 2, 500 projects that have been funded over a period of two years, we believe that PACE is serving in many communities across the nation as a dynamic and positive force for educational improvement.
>
> The study team feels that education has much at stake in the continuation of Title III's spirit of venture capital—the first 'thinking money' many school districts ever had—and in the success of the states in building upon this thrust. Otherwise, if Title III should someday lose or forget this major premise and early promise, it is

> predictable that of necessity another fund will emerge elsewhere, quite possibly from those agencies dealing with the agony of cities, to recover and resume the unique quest that was Title III's. The nation has a right to expect that education will lead in its own renewal. Title III is the sharpest tool to that end."

How relevant are these two statements today—in November, 1968?

An answer is not simple, and any discussion of the matter should consider the various levels.

First, at the federal level: Close observers of the Washington scene over the past ten years, or since the NDEA legislation was passed, have noticed the increasing extent to which political considerations are determining educational directions. While the nature of our government rests upon the art and gamesmanship of politics, and we accept this, the education of a people must look elsewhere for its anchorage. Many of us are alarmed at the extent to which a handful of politicians and/or a cluster of organizations and special interest groups can manage educational policy.

The two prominent examples of this danger are (1) the turnover of ESEA to the states and, (2) the categorization of 15 percent of PACE monies for the handicapped. In both cases, overwhelming opposition among educators and PACE project directors would have been registered if anyone would have taken time to ask those most directly concerned. Just two examples of evidence available on these points: In Report No. 5 on "The Views of 920 Project Directors," one finds, even considering the tendency to "live with" the decision, strong and clearly dominant sentiment against the turnover to the states. This view also was found among members of the Second National Study Team.

The 15 percent categorization has raised even greater opposition. For example, the 230 conferees attending the President's National Advisory Council Conference on Innovation in October, 1968, made 138 recommendations, as reported in the October issue of PACEreport. The single most frequently made recommendation called for elimination of the 15 percent for the handicapped. Again, the overwhelming sentiment of the members of the Second National Study Team opposed the 15 percent for the handicapped.

A third consideration at the federal level concerns the changing nature of the USOE staff, particularly those with primary responsibility for the PACE program. The attitude and spirit of the PACE staff have changed significantly over the past two years. The early enthusiasm and high expectations for ESEA Title III are all but gone, and so have some of the officials. Good officials do remain, and their dedication remains, but their willingness to "swing" and to "innovate" has been diminished dramatically. (This change, however, cannot be attributed only to changes in ESEA Title III; it comes also from the general wait-and-see attitude that is part of the transition to the Nixon administration.)

The problems of self-renewal that have been described very well by John W. Gardner are very evident when one observes what has happened with PACE personnel. Perhaps some mechanism or some procedure can be found that will provide the freshness, dynamism, dedication, and intelligence that are critical to the renewal process. We need to know much more about the process itself.

An important factor of ESEA Title III's future success or failure may be the President's National Advisory Council on Supplementary Centers and Services (NAC). As one of three presidentially appointed educational advisory councils, the NAC is charged with these functions:

1. Review the administration of the general regulations for the Title;
2. Review the operation of the Title, including its effectiveness in meeting the purposes for which the federal funds may be used;
3. Review, evaluate, and transmit to the Congress and the President the reports submitted by state advisory councils to the National Council through their respective educational agencies;
4. Evaluate programs and projects carried out under the Title, and disseminate nationally the results of this evaluation;
5. Make recommendations for the improvement of the Title and its administration and operation;
6. Make an annual report of its findings and recommendations (including recommendations for changes in

> the law) to the President and the Congress not later than January 20 of each year. The President is requested to transmit to the Congress any comments or recommendations he may have with respect to the report.

Speaking at the President's Advisory Council Conference on Innovation about the NAC, its chairman, James Hazlett, chairman of the NAC (and Superintendent of Schools, Kansas City, Missouri), said that the Council "was established as a completely independent advisory body to the President and the Congress. The Council's purpose is to review and evaluate on a national scale the impact of Title III in seeking imaginative solutions to educational problems; its mission also involves working closely with all groups concerned with PACE—State educational agencies, State advisory councils, the U. S. Office of Education—in order to promote better working relationships among these groups and to obtain essential feedback from all levels of operation."

Turning to the state level: The first national study found a discouraging picture at the state level. At the time—October, 1966, or one year after the Act's passage—only 10 states had full-time coordinators; and of the 37 states with part-time coordinators, nine gave 10 percent of their time to it. In that same report, it was recommended that state departments "should receive a 4-percent allocation of the overall Title III appropriations for (1) development, stimulation, and for (2) administration of the title." With the funding turnover to the states as well as the 7-1/2 percent set aside in each state's appropriation for administration, one can assume that the employment of adequate state department personnel to administer the program is being accomplished.

But the more fundamental question is whether the state departments—considering their primary functions and traditional roles—will be able to keep alive, and enrich, the spirit of creativity and innovation that has characterized the PACE program.

At the present time, and continuing for at least several years into the future, a shifting of power and control from Washington to the various state capitals can be expected. This flow is particularly evident in education. (A flow within states, interestingly enough, is in the opposite direction—toward centralization of power and control in the state department of education.)

State departments perform three vital functions: setting minimum standards, judging these standards, and serving as the educational fiscal agent for the state government. (The latter function alone is a major one when one considers that one-half or more of most state budgets are spent on education.) These important functions are regulatory and maintenance functions, and these are quite different from the innovative and creative and demonstrative type of programs that are needed for PACE if the original intent is to be preserved.

As another input: on the survey of 920 PACE project directors

(Report No. 5), they were asked to list the greatest advantages and the greatest weaknesses of the turnover to the states. For advantages, they listed:

1.	Direct lines of communications	51%
2.	Better knowledge of local problems	24
3.	No advantage	16
4.	More economical use of funds	9

For weaknesses, they listed:

1.	Politics	61%
2.	Lack of leadership	15
3.	Lower standards	12
4.	No weakness	4

Clearly, PACE directors are concerned that "politics" may become the final arbitrator of what is good education.

In some states, the trend toward regionalization is another indication of the validity of their concerns. If a state is divided into geographical regions and each one is given "x" number of dollars for what they must call innovation and creativity, they have killed the spirit of PACE in their state, for all practical purposes. Whether they realize it or not, this approach turns ESEA Title III into another service program rather than one that provides "risk" capital. Service programs such as ESEA Title I and ESEA Title II are important and can be very useful to school improvement, but they should not be confused with the spirit and intent of Title III.

A state-administered PACE program featuring creativity and innovation is being accomplished in some states, and some regionalizations are promoting the intentions of PACE. But one cannot generalize from the exceptions, and the state-level outlook for PACE, on the whole, is not promising.

An important determinant of success or failure would appear to rest with the newly organized state advisory councils that have been mandated for each state. Speaking about the role of the state advisory council at the recent President's Advisory Council Conference on Innovation, Terrel H. Bell, Utah State Superintendent of Public Instruction, said:

> It seems to me that advisory councils will be what we make of them. Title III advisory councils will function on a high level if we appoint capable people, provide adequate and effective staff support, and place considerable weight upon the advice of the council offers. To do otherwise is to be insincere in calling upon the valuable time of busy people who accept such assignments. . . .
>
> Roles of staff, advisory councils, Chief State School Officers, and state boards of education need to be clearly defined. Such deliberations will place heavy emphasis upon the processes of deliberation, weighing of priorities, and rendering of advice concerning decisions to be made. This is a key role in the administration of Title III which can be placed by a representative, capable, and dedicated council. With such assistance, Title III programs in the ESEA will be more productive.

> To this end, the function of the advisory council should not be considered as 'only advisory' but as 'vitally and indispensably advisory.'

Turning, finally, to the local level: The strength of PACE continues at the local level, with probably some diminution of enthusiasm and high expectations balanced with greater wisdom about project management and knowledge about how change takes place. Also, as many operational projects come to the end of their three-year cycle, professional security and project termination will have its toll upon the final six months of operation.

The First National Study Report expressed this view about project directors:

> Within the field of professional education many dynamic, intelligent, creative, ambitious, and restless individuals can be found. They exist in every school system across the Nation, and they can be a vital force in educational improvement. Too many of this group leave education because of low salaries and poor working conditions, to be sure, but probably more leave because of frustration and lack of challenge.
>
> PACE has become the natural home for this group. The special consultants and the directors have been impressed with the enthusiasm and intelligence found among the project directors.

Evidence and observation subsequent to this quotation have not altered the nature or tone of what was said.

Yet insufficient consideration has been given to how the PACE expertise might be applied to other educational problems. Consultants still are drawn largely from the university and college circles, and special programs in the change process have not been developed to harness PACE expertise.

Considering the federal-state-local levels as well as other factors that have been mentioned, what can be said about the state of ESEA Title III? On the whole, PACE remains healthy, although some signs of pre-mature old age are evident. The patient will grow more robust or continue downhill, at an accelerating rate, depending upon factors that are external to the patient. These factors, however, are not beyond his control. Project directors banded together in any one state may be able to assert effective pressure.

RECOMMENDATIONS

There is life remaining in PACE, and ways need to be sought to enrich what is taking place. To this end, a series of recommendations have been made in the various reports as well as in this one. Since each report is written to stand "on its own" as well as to serve the overall study, there is a slight overlap on some recommendations.

Let us now turn to the various recommendations:

Report No. 1: "Evaluation and PACE":

I. THERE SHOULD BE ESTABLISHED:

   A. A NATIONAL LABORATORY FOR THE STUDY OF EVALUATION

   B. A NATIONAL INFORMATION CENTER FOR EVALUATION

C. A NATIONAL GRADUATE SCHOOL FOR EDUCATIONAL EVALUATION (This recommendation by Egon Guba)

II. EVALUATION COMPETENCE FOR ESEA TITLE III SHOULD BE DEVELOPED THROUGH SUMMER INSTITUTES, IN-SERVICE EDUCATIONAL TELEVISION FEATURING VIDEOTAPES DEVELOPED FOR NATIONAL USAGE, AND SPECIAL MANUALS.

NDEA institutes might well be developed on PACE evaluation. Twelve, six week summer programs might make a significant dent in the PACE evaluation, especially if this cadre would be on call to help other PACE projects.

III. EVERY PROPOSAL SHOULD AMPLY DEMONSTRATE THAT OBJECTIVES HAVE BEEN CONSIDERED AT THE GENERAL AND SPECIFIC LEVELS.

Furthermore, learning or behavioral objectives should be related to program activities, and the types of evaluation used should be related to activities.

Again, the proposals reflect a serious weakness in American education; namely, giving lip-service to objectives. The tendency is to develop an idea in terms of bringing about some improvements, but rarely do project developers force themselves in the difficult position of making precise decisions about objectives. But this initial step is essential in order for effective evaluation.

IV. PROCEDURES FOR EVALUATION SHOULD CLOSELY REFLECT THE NATURE OF THE TASK OR PROJECT TO BE EVALUATED.

The current interest in cost effectiveness and cost benefit studies has prompted greater attention to hard data, and this attention on the whole is desirable, but PACE directors must not try to force hard data procedures upon unlikely situations. Robert Havighurst, in commenting on the problems of evaluating Supplementary Educational Centers, points out that "the programs of the Centers tend to be broad, and rather vaguely defined. They usually propose to create new courses of instruction with new teaching materials, or to train teachers and counselors for new roles. They do not lend themselves to an experimental design, with experimental and control groups of students and statistical tests of various hypotheses."

V. EVERY PACE PROPOSAL SHOULD BE REQUIRED TO HAVE A SEPARATE BUDGET ITEM FOR EVALUATION, AND THE AMOUNT OF THIS FIGURE SHOULD NOT BE LESS THAN FIVE PERCENT OF THE TOTAL BUDGET.

Very little or no budgetary commitment to evaluation results in very little or nothing. The return expected is directly related to the investment made. Proposals simply must have a well-defined and adequate evaluative expenditure to expect sound results. The five percent figure is not based upon research but upon experience with a few proposals that seem to have an adequate evaluation scheme. Some evaluation schemes go up to ten percent of the total budget.

VI. NEW GUIDELINES NEED TO BE DEVELOPED BY THE USOE THAT WILL STRENGTHEN PROJECT ASSESSMENT.

The problem of guidelines is complicated by the widely varying differences among PACE projects, ranging from a single task, single school project with modest financing to multi-task, multi-district effort with several hundred thousand dollar expenditure. The objectives established for these two projects would be vastly different and therefore so should be the evaluative procedures.

The problem of guidelines is further complicated by differences in types of activities. Elliot Eisner, for example, points out that "it should be made clear at the outset that the evaluation of learning in the cultural arts is a task beset with a variety of special difficulties. . . . The context in which evaluations in the cultural arts reside is one that tends to have little disposition toward objective evaluation and few instruments appropriate for evaluation when unique objectives are formulated."

VII. THE USOE SHOULD DEVELOP SIMPLE YET ACADEMICALLY SOUND MATERIALS ON THE

THEORY AND PRACTICE OF EVALUATION THAT WILL PROVIDE CONCRETE ASSISTANCE TO PROJECT DIRECTORS.

Financing of the ESEA Title III largely will be turned over to the states within two years, yet the Commissioner will maintain the responsibility for approving all state plans, and within these could be required detailed evidence that evaluation was being given serious attention within the state. The availability of sound materials would have an important role in improvement of projects within the various states.

Report No. 4: "Analysis and Evaluation of 137 ESEA Title III Planning and Operational Grants"

I. EVERY PROJECT PROPOSAL SHOULD BE REQUIRED TO SUBMIT EVIDENCE THAT THOSE DEVELOPING THE PROJECT HAVE A GOOD GRASP OF THE LOCAL AREA, BOTH IN TERMS OF NEEDS AND RESOURCES.

This evidence does not have to be a needs assessment study if the project is a single idea or a program; still, some evidence of local considerations should be evident.

II. EVERY PROPOSED SUPPLEMENTARY CENTER TYPE OF PACE PROGRAM SHOULD INCLUDE A REASONABLY THOROUGH NEEDS ASSESSMENT STUDY.

A statement or assessment of needs should include the identification of goals, processes for goal attainment, and specification of areas of greatest needs and deficiencies. Most terminal reports included little or nothing about how issues or programs were selected, and, in many other instances, this essential aspect of the report covering the supplementary center type of project was either minimized or omitted.

III. STATE DEPARTMENTS OF EDUCATION NEED TO GIVE CAREFUL CONSIDERATION TO THE TYPE OF TERMINAL REPORTS THAT WILL PROVIDE A FITTING CLIMAX TO A PACE PROJECT, WILL MEET LEGAL REQUIREMENTS OF REPORTING, AND WILL ALLOW ESSENTIAL FINDINGS TO BE DISSEMINATED EFFECTIVELY.

Our study found that most projects omitted one or more types of information, such as: project title, type of project, grant number, period of time, amount of the grant, number of students to be served, cost per student, number of school districts involved, the name of the state, and so forth.

The study team had no idea how sloppy, inaccurate, and incomplete it would find the final reports, in most cases. Those who submit such reports are guilty of professional negligence and fiscal irresponsibility, and they need to be dealt with accordingly. If this message seems overstated, one needs only to examine the end of project reports submitted by many projects.

IV. INVOLVEMENT OF COMMUNITY RESOURCES AND PERSONNEL SHOULD BE MORE CAREFULLY CONSIDERED; IT SHOULD BE REALISTIC AND SHOULD HAVE ADEQUATE FOLLOW-THROUGH.

No promises should be made that cannot be kept; no obligations should be incurred that cannot be met.

A majority of the projects studied are guilty of overextension and superficiality on community relations. The project developers promise too much, involve too many, and analyze too little the HOW of effective community involvement.

V. ALL PROJECTS SHOULD HAVE EFFECTIVE EVALUATION PROCEDURES—EFFECTIVE IN TERMS OF STATED OBJECTIVES AND PLANNED PROGRAMS.

The call for better evaluation is an old saw, if the three years of PACE history is told; but the call needs to be made again and again.

In only one or two instances out of 94 planning projects can one glean from the proposal a serious and sophisticated concern about evaluation—a concern that viewed evaluation as a vital part of the day-to-day monitoring process as well as a judgmental decision reflecting success or failure of the program.

VI. EVERY PACE PROPOSAL SHOULD HAVE A SEPARATE BUDGET ITEM FOR EVALUATION, AND THIS FIGURE SHOULD NOT BE LESS THAN FIVE PERCENT OF THE TOTAL BUDGET.

Only a small number of the terminated projects included plans for evaluation, and even these appeared to be afterthoughts or were non-integral parts of the project structure. While there is reason to believe that evaluation has improved during the last year, the level is still far below what is desirable and what is needed.

VII. MORE EVIDENCE OF PLANNING SHOULD BE REQUIRED IN FUTURE PACE PROPOSALS.

The study team was aware of the dilemma between over-planning and over-structuring on the one hand, and a relaxed, pragmatic approach to design on the other; but evidence gained from the 137 terminal reports lead us to believe that greater emphasis should be placed on planning and design in all future proposals.

VIII. PROVISIONS FOR CONTINUATION AFTER TERMINATION OF ESEA TITLE III FUNDING SHOULD BECOME MORE EVIDENT IN THE FUTURE.

The newness of PACE, the unexplored perimeters of its guidelines, and the unknown labyrinths of federal assistance have all mitigated against serious consideration of what might take place when the planning grant ended. But as we look ahead, profiting from the past, continuation considerations should become more important without becoming a requirement for approval.

IX. FUTURE PACE PLANNING GRANTS SHOULD BE ALLOCATED ON A SHARING BASIS WITH LOCAL COMMUNITIES—SOMETHING IN THE DOLLAR RANGE OF 8 OR 10 TO ONE.

The study team found that where local funds were committed to the project, it was better planned, the objectives more clearly stated, and the procedures for realizing the major goals of the project were more carefully developed.

Report No. 5: "The Views of 920 PACE Project Directors"

I. MEETING OBJECTIVES, NEEDS OF THE AREA, INNOVATIVENESS AND CREATIVITY, AND MERITS OF THE PROPOSAL SHOULD BE GIVEN PRIMARY EMPHASIS IN DEVELOPING AND EVALUATING PACE PROJECTS.

PACE stands for Projects to Advance Creativity in Education. This obvious point is easy to forget when a project director states that his project is:

serving a sizeable number,
providing good public relations,
producing results,
assisting the regular school program,
and so forth.

The descriptors are legitimate and may be important, but they are not the focus of PACE. It is very important that the innovative and creative ideals of PACE be carefully guarded. American education is in constant and considerable need of cutting edge, diverse approaches to common and uncommon problems.

II. STATE ADVISORY COUNCILS SHOULD BECOME POWERFUL INSTRUMENTS, THEMSELVES ERRING ON THE SIDE OF CREATIVITY AND DYNAMISM RATHER THAN PASSIVITY AND APPROVAL.

This volume has not dealt with state advisory councils but it has been concerned with the primary thrusts of the PACE program, and since state advisory councils—a new mechanism—are importantly situated with respect to these thrusts, it would seem appropriate to bring in the state advisory councils at this point.

At this early juncture it is impossible to judge the quality of the state advisory councils, but as Terrel H. Bell, Utah State Superintendent of Public Instruction, points out: "It seems to me that advisory councils will be what we make of them. Title III advisory councils will function on a high level if we appoint capable people, provide adequate and effective staff support, and place considerable weight upon the advice the council offers."[a]

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[a] Terrel H. Bell, "The State Advisory Council," Conference on Innovation. (Report by the President's National Advisory Council on Supplementary Centers and Services, November, 1968), p. 44.

III. STATE ADVISORY COUNCILS MUST TAKE EVERY CAUTION AGAINST UNDESIRABLE POLITICAL INTERESTS, WHICH CAN INCLUDE GEOGRAPHICAL CONSIDERATIONS AND PATRONAGE.

The problem of excessive political interests in some states may be an excessive albatross for organized innovation. At this early stage, one can cite a few instances where the dynamic and exciting edge of PACE has been compromised by political interests. While politics is a vital part of our way of life, our children and youth are the losers when selfish political interests of a few take precedence over educational interests of many.

Perhaps an open awareness of the dangers of excessive political considerations is the best safeguard against it, along with carefully designed procedures for project development, evaluation, and dissemination.

As more political and educational power shifts from the federal and the local levels to the state level—a trend that is now several years old and likely to continue for many more years—many observers believe that new approaches and programs will be required at the state level if the challenges of new opportunities are to be met. In his January, 1967, Inaugural Address, Washington's Governor Daniel Evans said: "State governments are unquestionably on trial today. If we are not willing to pay the price, if we cannot change where change is required, then we have only one recourse. And that is to prepare for an orderly transfer of our remaining responsibilities to the federal government."[a]

IV. WAYS OF CONTINUING SOME PACE PROJECTS BEYOND THREE YEARS SHOULD BE FOUND.

Sound investment of public monies for education requires that some, probably few, PACE projects should be continued beyond three years, but probably not more than five years in any case. We know now that three years is altogether too short a period of time for some projects and an excellent time span for many others—probably a majority of them.

Many potential problems loom ahead if the three-year grant period is lengthened or made open-ended for all projects. It can mean that fewer new projects can be started; that the state will be saddled for more than three years with average or less-than-average projects; and that the tempo of individual projects may become less dynamic.

At this time, it would seem unwise to have a general extension beyond the three years, but it seems equally unwise to not have some sort of status that will allow an extension (a) for the exceptional

[illegible]

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[a] Quoted in Committee for Economic Development, Modernizing State Government. New York: The Committee, 1967, p. 10.

projects and (b) for the exceptional project that requires a longer developmental period.

V. SUBSTANTIALLY GREATER FUNDS SHOULD BE APPROPRIATED FOR ESEA TITLE III.

Evidence obtained on the 1966 and 1968 surveys indicates very clearly that project directors, those who should know, need more funds.

The turnover to the states may be a hopeful sign for increased funds. Heretofore, the PACE program had no organized constituency; now it has 50 powerful ones, and perhaps some organizational support also. An organized effort to increase the appropriate funding level is certainly in order. While the program is far from perfect, it is serving well the cutting edge dimension of American education. In other words, the increase in PACE funds is a good investment of public money.

Report No. 6: "PACE: Catalyst for Change"

I. THE 15 PERCENT CATEGORIZATION FOR THE HANDICAPPED SHOULD BE RESCINDED.

There is no educationally sound justification for singling out the handicapped. One can make at least as good an educational case for singling out the gifted, and of course a much stronger case can be made for the gifted in terms of our national interest.

Reaction to the handicapped provision is clear: (1) An overwhelming majority of educators and PACE project directors are opposed to it, and (2) the 15 percent has taken all new monies in many states, and the provision has forced some ongoing projects to fit in something for the handicapped, thereby violating the original spirit and intent of ESEA Title III.

This recommendation must not be interpreted as anti-handicapped. Such an interpretation really misses the point. The handicapped category already is taken care of under provisions of other Titles. The recommendation opposes not the handicapped, *per se*, but the effort to break ESEA Title III into categories and thereby destroy not only the flexibility in the program but also the freedom of choice that has provided a milieu conducive to creativity and innovation.

II. THOSE RELATED TO PACE SHOULD ACCENTUATE THE POSITIVE WITHOUT IGNORING THE NEGATIVE.

In spite of the many problems and weaknesses that can be related to ESEA Title III, one needs to view the Title in somewhat the same way as the football coach with a good team. His next opponent, however, is the pride of the region and a three-touchdown favorite. Rather than wringing his hands and thinking "all is lost and may Sunday come as kindly as providence will allow," he assesses the strengths and weaknesses of both teams as accurately as possible—

avoiding self-deception at all costs. His game plan will be based upon the positive belief that his team can win. After all, it is the only team he has—and miracles can be made to happen!